**Classification Vocab**

1. **Dichotomous Key:** an aid that is used to identify organisms and that consists of the answers to a series of questions
2. **Cladogram:** a branching diagram that shows characteristics between organisms, each characteristic on the cladogram is shared by the animals to the right of the characteristic
3. **Archaea:** single celled organisms that live in extreme environments, domain made up of prokaryotes, and in their genetics, aligns with the traditional kingdom Archaebacteria
4. **Bacteria:** single celled organisms that can be found in soil, water, and inside other organisms or cause diseases, domain made up of prokaryotes, aligns with the traditional kingdom Eubacteria
5. **Protista:** kingdom of mostly single-celled or simple multicellular eukaryotic organisms that are different from plants, animals, and fungi, also called protists, examples include protozoans, slime mold, and algae
6. **Fungi:** kingdom made up of non-green eukaryotic organisms that have no means of movement, reproduce by using spores, and get food by breaking down substances in their surroundings and absorbing the nutrients, examples include molds and mushrooms
7. **Plants:** kingdom made up of complex, multicellular organisms that are usually green, have cell walls made of cellulose, cannot move around, and use the sun’s energy to make sugar by photosynthesis
8. **Animalia:** kingdom made up of complex, multicellular organisms that lack cell walls, can usually move around, and quickly respond to their environment, commonly called animals and depend on other organisms from other kingdoms
9. **Domain:** largest and most general or broadest group of the different levels of classification and is divided into three categories: Eukarya, Bacteria, and Archaea
10. **Kingdom:** all living things in Domain are then divided into Kingdoms, this level of classification is more specific than Domain and the organisms in each Kingdom share characteristics and are more alike than organisms from other Kingdoms, this level is divided into five categories: Animal, Plant, Protista, Fungi, and Monera
11. **Phylum:** a Kingdom is broken down into Phyla or Phylum, this level of classification is below and more specific than Kingdom, the organisms in each Phylum have some similarities to each other that suggest a common ancestor
12. **Class:** a Phylum is broken down into Classes, this level of classification is even more specific than Phylum, these organisms have even more characteristics in common and share even more similarities than those in the entire Phylum
13. **Order:** organisms in each Class are broken down into Orders, this level is more specific than Class, the organisms in each order share even more characteristics than organism in other Orders
14. **Family:** organisms in each Order are further broken down into Families, this level is more specific than Order and the organisms in the same Family have more characteristics in common than organisms in other Families
15. **Genus:** organisms in each Family are broken down into Genus, this level is more specific than Family and is the first part of the scientific name for an organism, the organisms in the same Genus share more similarities with organisms in the same Genus than organisms in another Genus
16. **Species:** organisms in each Genus are further broken down by Species, this is the MOST specific level of classification, this is the second part of the scientific name for an organism, this is a group of organisms that are closely related and can mate to produce fertile offspring
17. **Classification:** the division of organisms into groups, or classes, based on specific characteristics
18. **Taxonomy:** the science of describing, naming, and classifying organisms
19. **Binomial Nomenclature:** a system of naming in which each species receives a two part name, the first part identifies the genus the organism belongs to and is always capitalized and the second part identifies the species itself and is not capitalized, this is also referred to as the organisms scientific name and is *italicized*