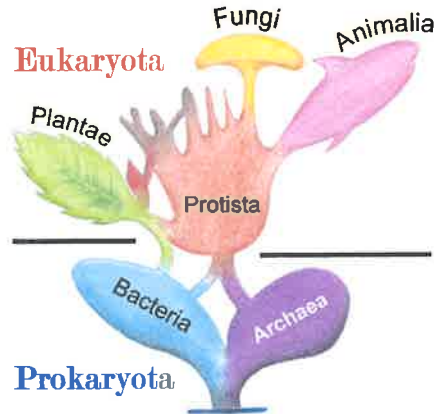


# Classification Review Guide



1. Why do organisms need to be classified? *So we know what they are*
2. Define taxonomy. *group organisms according to biological meaning*
3. What are the levels of classification? *Kingdom → Phylum → Class → Order → Family → Genus → Species*
4. Name the broadest category of classification. *Domain & Kingdom*
5. How would you classify a human using the levels of classification? *over*
6. Why do all organisms have a scientific name? *no confusion with a common name*
7. How do you write the scientific name? *Genus 1<sup>st</sup> + capital species 2<sup>nd</sup> + lowercase - all is underline*
8. Define cladistics. *links groups by showing evolutionary history*
9. How is cladistics used in classifying organisms? *— in a cladogram or phylogenetic tree*
10. What is a node? *point of common ancestor*
11. What is a phylogenetic tree? *shows grouping according to evolutionary history*
12. Be sure to be able to read a cladogram or phylogenetic tree.
13. What is a dichotomous key? How does it work? *Use 2 choices to determine*
14. Make sure you can use and make a dichotomous key to determine a group of organisms.
15. Describe the 3 main types of Domains. *Eukarya, Archea, Bacteria*
16. Name the main kingdoms of life. *Animalia, Plantae, Fungi, Protista, Bacteria, Archaea*
17. Complete the table below.

|                 | Kingdom Archaea                 | Kingdom Bacteria             | Kingdom Protista                 | Kingdom Fungi               | Kingdom Plantae       | Kingdom Animalia        |
|-----------------|---------------------------------|------------------------------|----------------------------------|-----------------------------|-----------------------|-------------------------|
| Number of cells | <i>1 unicellular</i>            | <i>1 unicellular</i>         | <i>unicellular multicellular</i> | <i>Mostly multicellular</i> | <i>Multicellular</i>  | <i>Multicellular</i>    |
| Cell Type       | <i>Prokaryote</i>               | <i>Prokaryote</i>            | <i>Eukaryote</i>                 | <i>Euk</i>                  | <i>Eukaryote</i>      | <i>Euk</i>              |
| Cell wall       | <i>YES</i>                      | <i>Yes</i>                   | <i>YES</i>                       | <i>Yes</i>                  | <i>Yes</i>            | <i>No</i>               |
| Nutrition       | <i>Auto + Hetero</i>            | <i>Autotroph Heterotroph</i> | <i>Auto + Hetero</i>             | <i>Heterotroph</i>          | <i>Autotroph</i>      | <i>Heterotroph only</i> |
| Mobile          | <i>Yes (cilia, flagella)</i>    | <i>yes</i>                   | <i>yes</i>                       | <i>NO immobile</i>          | <i>immobile</i>       | <i>mobile yes</i>       |
| 2 Examples      | <i>methanogens thermophiles</i> | <i>E. coli streptococcus</i> | <i>Amoeba Euglena</i>            | <i>Mushroom Yeast</i>       | <i>rose sunflower</i> | <i>cat fish</i>         |

⑤ Eukarya → Animalia → Chordata → mammalia → primates → Hominidae →  
Homo → sapien