**Classification Reading Check**

1. Why are classification systems useful?
2. What are two characteristics of a good classification system?
3. What advantages is there for two scientists on opposite sides of the world to use a single name for a particular organism?
4. Give an example of a system you use to classify object or people around you.

15-3

1. Why is the system of binomial nomenclature a good way to name organisms?
2. What is the smallest taxon? What is the biggest?
3. Which of these taxa is the most specific?
4. Critical Thinking: Two groups of organisms are in a different genera but they are included in the same family. What does this information tell you about the two groups?
5. Which taxon has a clear biological identity? Explain your answer.
6. List the 6 Kingdoms and 3 Domains.

11. Apply: a Single-celled organism could be placed in either Archeabacteria, Eubacteria, or Protista Kingdom. What factor would be the most significant for determining into which kingdom it should be placed?

12. Complete the following chart, checking which characteristics each kingdom has. The first characteristic has been done for you.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Characteristic | Archaebacteria | Eubacteria | Protista | Fungi | Plantae | Animalia |
| Prokaryote | **✓** |  |  |  |  |  |
| Eukaryote | no |  |  |  |  |  |
| Unicellular | **✓** |  |  |  |  |  |
| Multicellular | no |  |  |  |  |  |
| Autotroph |  |  |  |  |  |  |
| Heterotroph | **✓** |  |  |  |  |  |
| Saprotroph |  |  |  |  |  |  |
| Chlorophyll |  |  |  |  |  |  |
| Cell wall of cellulose |  |  |  |  |  |  |
| Cell wall of chitin |  |  |  |  |  |  |
| Example of an organism | Thermophiles |  |  |  |  |  |