Classification of Living Things

**WEBQUEST**

Name: period

**I. VOCABULARY:** Define the following:

Autotroph-

Heterotroph-

Unicellular-

Multicellular-

Prokaryote-

Eukaryote-

Cell Wall-

**II. CARL LINNAEUS**

Read the information about Linnaeus. Then answer the questions below on your own paper. Respond to questions in a complete sentence. <http://www.ucmp.berkeley.edu/history/linnaeus.html>

1. Linnaeus did not go to college to become a taxonomist. What was he actually studying? How did this lead him to his work in classification and taxonomy?

2. Although Linnaeus gets credit for laying the foundation for taxonomy and classification, he could not have been successful without the help of his students and peers. How does this demonstrate the nature of scientific discovery?

3. What was the title of Linnaeus book on classification? 

4. Linnaeus focused on the classification of plants. What characteristic(s) did Linnaeus use to classify plants? How does this compare to the characteristics that are used today?

5. Compare and contrast the classification system used by Linnaeus to the classification system that we use now.

6. Describe at least two problems that resulted from the naming system used prior to Linnaeus.

7. What do we mean by the term binomial nomenclature? Name at least one way this is used outside of the field of taxonomy.

8. Linnaeus work was published before Darwin developed his theory of natural selection. How do you think Linnaeus may have contributed to Darwin's idea that species change over time due to pressure within their environment? Explain.

**III. TAXOMONY**

1. What is a domain?

<http://waynesword.palomar.edu/trfeb98.htm>

1. What are the three domains for classifying life?

<http://waynesword.palomar.edu/trfeb98.htm>

|  |  |  |
| --- | --- | --- |
| Domain | Example | Interesting Fact |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

1. Find the levels of organization used today (starting with Kingdom and ending with Species)

<http://www.indianchild.com/animal_kingdom.htm>

List the Six Kingdoms <http://www.ric.edu/faculty/ptiskus/Six_Kingdoms/Index.htm>

|  |  |  |
| --- | --- | --- |
| Kingdom | Example | Interesting Fact |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

1. Fill in the following chart (Page five) for each kingdom. (use as many of the websites below as needed)

<http://www.ric.edu/faculty/ptiskus/six_kingdoms/index.htm>

<http://biology.about.com/od/evolution/a/aa091004a.htm>

<http://en.wikipedia.org/wiki/Biological_kingdom_chart>

<http://faculty.southwest.tn.edu/rburkett/classification_of_organisms.htm>

1. Which kingdom would each of the following organisms belong to?
   1. YOU!
   2. Amoeba
   3. Stromalitic Cyanobacteria
   4. Madagascar Hissing Cockroaches
   5. Methanogens and Thermophiles
   6. Ringworm
   7. Elodea
   8. Shitake mushroom
   9. E. Coli
   10. H1N1

**VI. Dichotomous Key**

Click on the link and complete exercise and 3 <http://www.biologyjunction.com/dichotomous_keying.htm>

|  |  |
| --- | --- |
| **Number** | **Conifer Name** |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| 10 |  |
| 11 |  |
| 12 |  |
| 13 |  |
| 14 |  |
| 15 |  |
| 16 |  |

ORGANIZATION OF LIFE

DOMAINS

KINGDOMS

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Unicellular**  **or**  **Multicellular** |  |  |  |  |  |  |
| **Prokaryote**  **or**  **Eukaryote** |  |  |  |  |  |  |
| **Autotrophic**  **or**  **Heterotrophic** |  |  |  |  |  |  |
| **Cell Wall & its**  **composition** |  |  |  |  |  |  |
| **Special**  **Characteristics** |  |  |  |  |  |  |