**How Are Living Things Classified Into Groups?**

**I. Introduction**

Today most scientists classify all living organisms into six major groups, called kingdoms. These six kingdoms are Archaebacteria, Eubacteria, Protista, Fungi, Plant, and Animal. Each of the six kingdoms has a unique set of characteristics that identify its members. These characteristics include the number of cells, whether or not those cells have nuclei, the organism's ability to move from place to place (locomotion), and whether the organism makes its own food or obtains it from other organisms (nutrition).

A kingdom may share one or more of these characteristics with other kingdoms, but the set of characteristics that defines each kingdom is unique. For example, members of both the Plant and Animal kingdoms have many cells with nuclei, but only animals have all these characteristics of the Animal kingdom: they move from one place to another, eat food for energy, and have many cells with nuclei.

In this Virtual Lab you will classify organisms into kingdoms based on their physical and behavioral characteristics.

**II. Procedure**

1. Start the activity by going to the following website :

<http://www.glencoe.com/sites/common_assets/science/virtual_labs/E07/E07.html> .

2. Click and drag an organism from the upper right of the screen down to the magnifying glass.

The organism's common name, a larger picture of the organism, and information about the

organism appear. Open the Table and record the organism's number of cells, type of cells,

locomotion, nutrition, and scientific name.

3. Click a kingdom name to see information about the kingdom. Use this information to classify

the organism you selected into its kingdom. Click the kingdom name again to remove the

information from the kingdom's sorting area.

4. Click and drag the organism to the kingdom where you think it belongs. Click the Check

button to see if you have classified the organism correctly. If a yellow highlight appears

around the organism, reexamine the organism and the kingdom characteristics and move the

organism to another kingdom.

5. When you have correctly classified an organism, record its kingdom and characteristics in the

Table. Some organisms do not have common names.

6. Classify the other four organisms in the same way. Some kingdom sorting areas may remain

empty while others contain multiple organisms.

7. Click the Reset button to classify a new group of organisms.

**III. Data**

1. Record the data in the Table below.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Scientific**  **Name** | **Common**  **Name** | **# of**  **Cells** | **Type of**  **Cell(s)** | **Locomotion** | **Nutrition** | **Kingdom** |
| Organism 1 |  |  |  |  |  |  |  |
| Organism 2 |  |  |  |  |  |  |  |
| Organism 3 |  |  |  |  |  |  |  |
| Organism 4 |  |  |  |  |  |  |  |
| Organism 5 |  |  |  |  |  |  |  |

**IV. Analysis & Conclusions**

**1. Many people organize books, videos, and CDs in their homes to make it easier to find**

**what they're looking for. Describe another type of classification system you have seen or**

**used.**

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**2. How are animals and plants different? Be specific.**

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**How are they the same? Be specific.**

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**3. Working as an assistant in a laboratory, you discover an organism that you believe**

**might be a new species of plant or fungus. What are some difference between plants and**

**fungi, and what clues might help you classify this organism?**

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