|  |  |  |
| --- | --- | --- |
| **iLearn BI 101**  **Report** | **Systematics Assessment:**  **Nailing Cladistics** | Name: |

Record your answers to the corresponding questions in the Procedures. To enter your answers into the diagram, click inside the text box or choose an item from the drop down list. When completed, submit this document through the assignment submission page in the Canvas course.

**Part 1: Plant Cladistics:**

1. Outgroup:
2. Ancestral trait:
3. Last group to evolve:

**Part 2: Dinosaur Cladistics:**

* To select an organism to add to the cladogram, click on the grey text box and select the appropriate animal.
* To add your trait, click on the box and type the trait you think is appropriate.

1. Outgroup:
2. Ancestral trait:

**Part 3: Hardware Characteristics**

Record your 10 items below:



**Table 3: Hardware Characteristics**

* Enter your hardware in the first row of cells and your traits in the first column. Try to keep your description of traits to three or four words to keep the formatting of the table tidy and easy to read.
* Once your traits and hardware items are entered, indicate in the appropriate cell whether the “organism” has that trait by clicking on the grey text box and select yes or no.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| List of traits | Hardware Items | | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

**Figure 3: Hardware Cladogram**

* To complete this cladogram, click on the “organism” boxes and type the nail of your hardware item. Restrict your name to 12 characters to protect the formatting.
* Depending on the number of items you excluded from you original 10 items, you may not use every arm of the cladogram. If you need to leave boxes blank, make them boxes on the left side of the diagram.

1. After completing your cladogram answer the following questions:
   1. What did you determine your ancestral trait to be?

* 1. Which “organism” was your outgroup?

* 1. Which piece of hardware ended up being your most derived “organism”?

* 1. Which piece(s) of hardware, if any, did you decide to exclude from your clade? For each give a detailed explanation as to why you chose to exclude it.

* 1. What types of observations did you make? Do you notice any kind of theme in the characteristics you seemed to focus on i.e. appearance, shape, function, etc?

* 1. How do you think the cladogram might differ between a person with a background in construction and a person with a background in art history? How is this comparable to the controversy that sometimes surrounds determining evolutionary histories in systematics?