**Key Template**: Use the following template to create your dichotomous key.

|  |  |  |
| --- | --- | --- |
| Title: Key to Identifying \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Go To: | | |
| Step 1 | 1a. |  |
| 1b. |  |
| Step 2 | 2a. |  |
| 2b. |  |
| Step 3 | 3a. |  |
| 3b. |  |
| Step 4 | 4a. |  |
| 4b. |  |
| Step 5 | 5a. |  |
| 5b. |  |
| Step 6 | 6a. |  |
| 6b. |  |
| Step 7 | 7a. |  |
| 7b. |  |
| Step 8 | 8a. |  |
| 8b. |  |
| Step 9 | 9a. |  |
| 9b. |  |

**Answer Key**: Choose a letter to represent each animal. Write the name of the animal next to its letter.

*\*When creating your dichotomous key, use the* ***LETTER*** *to represent the animal****,*** *not the animal’s full name.*

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Grading Rubric**: Your project will be graded according to the following rubric:

\_\_\_\_\_\_10 pts. Ten colourful, clear, accurate, and easy to understand illustrations were provided.

\_\_\_\_\_\_ 5 pts. A completed answer key was provided.

\_\_\_\_\_\_10 pts. All steps of Dichotomous Key were complete.

\_\_\_\_\_\_10 pts. The Dichotomous Key followed the proper structure (identifying characteristics were used to create steps of paired opposites).

\_\_\_\_\_\_10 pts. The Dichotomous Key was accurately worded. I successfully used it to identify all 10 items.

\_\_\_\_\_\_ 5 pts. The Dichotomous Key included proper spelling, punctuation and grammar. All included documents were neat, legible, and easy to identify.

\_\_\_\_\_\_/50 Total points

Comments:

**Classroom Investigations: The Key to Classifying Animals**

**Goals:**

* Learn about the uses of classification in scientific research.
* Learn how to construct a dichotomous key for a variety of organisms.
* Design a key to classify Galápagos animals based on descriptions and images

**Background Information:**

Classification of organisms is an important process for field biologists. Classification includes the investigation of genetic relationships among things, such as plants and animals, and the placement of these organisms into an organized system.

Charles Darwin spent most of his life doing research that involved the classification of plants and animals. Even as a young man he collected and classified all kinds of insects, especially beetles. During his 1835 exploration of the Galápagos, Darwin noted the variety of life forms that existed throughout the archipelago. In his description of the land birds in his journals, he attempts to classify the now famous Galápagos finches:

*“Of land-birds I obtained 26 kinds, all peculiar to the group [of islands] and found nowhere else, with the exception of one lark-like finch from North America (Dolichonyx oryzivorus), which ranges on that continent as far north as 54°, and generally frequents marshes. … The remaining land-birds form a most singular group of finches, related to each other in the structure of their beaks, short tails, form of body and plumage…”*

**Your Task:**

You will classify many of the reptiles that Darwin saw when he visited the Galapagos.

**Directions:**

1) Visit the online resource **Classification Gallery,** which is posted on my Edmodo page.

2) Carefully observe the images and descriptions of the Galápagos animals and take notes describing their different characteristics using the handout titled **Observation Chart**.

3) Fill in the **Answer Key** worksheetby assigning each animal to a letter.

4) Create a **Dichotomous Key**, using the template provided, to classify the animals found in the Classification Gallery. This key should consist of a series of questions. Each question should be used to divide the animals into two categories, until each category consists of only one animal. *Hint: You might begin by dividing the group into animals with legs and animals without legs. Then those with legs could be divided into animals with or without a different trait, and so on.*

**Conclusion Question:**

Why is classification an important field for biologists? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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