

## Create Your Own Dichotomous Key

In this project you will be creating a dichotomous key. Dichotomous keys are tools used by scientists to identify unknown organisms. To create your key, follow the steps outlined below. All complete keys are graded according to the attached rubric. The best key out of all 5 classes will be used on the test© Good luck, have fun and be creative.

1. Choose a group of non-scientific items that interest you. Example: candy, shoes, aliens, etc.
2. Select **10 different species (kinds)** from this group. Locate a picture online and put it in one document for your group. Be sure to cite your source (website address under the picture will suffice – remember google is a search engine not a website).
  - a. You can all search for pictures and then airdrop them to one document.
3. Decide upon a way to divide the items into two groups. Think of identifying characteristics such as shape, size, position, color, texture, etc. One characteristic must be defined and used to decide which items are placed in which groups. For example: a group of big cats could be divided into those with long tails and those with short tails. **The groups created must be opposite of each other.**
4. Record what factor was used to make the division and note which members of the original group belong to each resulting group.
5. After two groups (A and B) have been created, divide the first group (A) into two more groups based again on one criterion (C and D). For example, if group A were the short tailed cats, group C might be short tailed cats with a plain colored coat. Group D would be short tailed cats with a patterned coat.
6. Do the same with Group B.
7. Continue to divide the groups until each item is by itself. Keep careful records of the groups that were created and the dividing criteria.
8. Looking at your records and the divisions you made create a dichotomous key that would lead someone else to make the same distinctions you made. Begin your key by recalling the first factor you used to divide into two groups. Again using the big cat example: The first group was created depending on tail length. So the first question in the key should be: Does the cat have a short tail? If so, go to step 2. The second part should be the other choice. Does the cat have a long tail? If so, go to step 3.
9. You can use the sample at your lab station as a guide for this assignment.
10. When your dichotomous key is complete: Dichotomous key, pictures and an answer key please put an MLA heading on it (using students last names) and then WebDAV it to me (Station #, dichotomous key).

### Important Requirements:

- Include a page with the 10 cited illustrations you selected. **They should be identified only by the letters A-J. DO NOT INCLUDE THE NAMES ON THIS PAGE.**
- Provide an answer key as the last page of your assignment.

**Student names:** \_\_\_\_\_

**Scoring guide:** Your project will be graded according to the following rubric:

\_\_\_\_\_ 10 points: Ten colorful, clear, accurate and cited illustrations. (1 point each. You lose ½ a point for each illustration that isn't cited.

\_\_\_\_\_ 5 points: A complete answer key was provided.

\_\_\_\_\_ 10 points: All steps of the Dichotomous key were complete, followed the proper structure (identifying characteristics were used to create steps of paired opposites).

\_\_\_\_\_ 5 points: The dichotomous key was accurately worded. I successfully used it to identify all 10 items.

\_\_\_\_\_ 5 points: The dichotomous key included proper spelling, punctuation and grammar. It had an MLA heading and was put in WebDAV correctly.

\_\_\_\_\_ Your score

\_\_40\_\_ points total

\_\_\_\_\_ Your grade (you do the math😊)