

1. Come up with names for the six new butterfly species that have been discovered living over the Sargasso Sea. On a separate sheet of paper, create an answer key by writing the ID number (from the card) with the name you give it.

2. Cut out the six butterfly ID cards and arrange them so they all can be seen.

3. By asking a 'yes/no' question, divide the butterflies into two groups. For example, if creating a dichotomous key for your class, I could start by asking, "Are they girls?" Copy the question into the box and the possible answers (yes or no) onto the two arrows on the dichotomous key flow chart.

4. Further divide the 'yes' group by asking another 'yes/no' question and write it onto the flow chart. Continue with this process until you are left with one butterfly and write its name (the one you gave it) near the answer arrow.

5. Repeat this process with each 'no' answer until you have identified all six butterflies by name.

6. Trade flow charts with another student, but do not show them your answer key that links ID numbers to the names you created.

7. Have your partner try to identify the butterflies with the names you assigned by using the dichotomous key you created. When they're finished, they can check their answers with the answer key.

8. Now try to identify the butterflies with the names your partner created.

Congratulations! You have now used and created a dichotomous key!