

Dichotomous Keys

3rd Grade

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Benchmarks:

SLC 4: Students will use dichotomous keys, simple tables and flow charts to distinguish between objects.

Objectives:

To give students an understanding of dichotomous keys and how to use them. To give students examples of how scientists use dichotomous keys to classify things.

Materials:

- Four or five different types of candy that can be easily identified and easily classified (e.g. lollypops, gummy bears, gum, candy corn, and snickers)
- Brown paper bags
- A copy for each student of a dichotomous key that classifies the candy chosen (attached below)

Procedure:

Before going into the classroom, have one piece of candy in each of about 20 paper bags. Split the class into groups of two and give one person in each pair a bag, and the other person the dichotomous key. Have the person with the key figure out what type of candy is in his/her partner's bag by asking questions. When each pair has completed this task, collect all of the bags. Next, pass the bags out to the other person in the pair and have their partner figure out what is in the bag. After both people in each pair have completed each task, come back as a class and discuss the meaning of dichotomous keys and give some examples of what they are used for in science. If there is time, ask the class to create their own dichotomous key using their favorite two pieces of candy.

Target Observations:

- The key helped me figure out what type of candy was in my partner's bag

Target Model:

-Keys can be used to help identify things like candy, or scientific things like animals, plants, or rocks.

Figure out your partner's candy by following the steps of this ***dichotomous key***:

1. Is the candy hard? (If the answer is YES, go to question #2. If the answer is NO, go to question #3)
2. Is the candy round? (YES: go to # 4. NO: go to #5)
3. Does the candy come in different colors? (YES: go to #6. NO: go to #7.)
4. Does the candy have a stick? (YES: go to #10. NO: go to #1.)
5. Is the candy three different colors? (YES: go to #8. NO: go to #9.)
6. Is the candy in the shape of a bear? (YES: go to #11. NO: go to #7.)
7. Is the candy long and thin? (YES: go to #12. NO: go to #9.)
8. Is the candy shaped like a triangle? (YES: go to #13. NO: go to #.)
9. Is the candy chocolate? (YES: go to #14. NO: go to #1.)
10. Your candy is a lollypop!
11. Your candy is a gummy bear!
12. Your candy is gum!
13. Your candy is candy corn!
14. Your candy is Snickers!