Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_

Lab Partner\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Jelly Bean Classification Lab**

A **dichotomous key** is a method for determining the identity of something (like the name of a butterfly, a plant, or a rock) by going through a series of choices that leads the user to the correct name of the item. Dichotomous means "divided in two parts".

At each step of the process of using the key, the user is given two choices; each alternative leads to another question until the item is identified.

**Directions:**

1. *Observe & Make Model*: Draw a picture of your jelly bean in your Data Table.
2. *Predict*: What kind do you think it is? Record in Data Table
3. Read step 1 on the Dichotomous Key **Jelly Belly® jelly bean classification key.**
4. *Determine:* Decide which statement is true, and then follow the directions after that step. Step 1 will lead you to a new set of steps. Continue reading and following the steps until you discover the flavor of the jelly bean. Record each step in the Data Table.
5. *Analyze*: What flavor did the key show? Record the flavor of the jelly bean in the Data Table.
6. *Conclude*: Taste the jelly bean to verify if your identification was correct and record in the data table.
   1. If the flavor was incorrectly identified, retrace the path of steps and see where you think your team made a mistake. Discuss the error and record a possible reason below the table.
7. Repeat steps 1-8 for the remaining jelly beans. **Alternate** with your partner until all jelly beans have been identified.
8. *Conclude*: Working with your partner, discuss and summarize in 3-4 sentences how a dichotomous key could be useful in classifying living things

**Data Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Draw a picture of your Jelly Bean  *(Observe & Model)* | What kind do you think it is?  *(Predict)* | Dichotomous Key Route  *(Determine)* | Which flavor did the key show? ​  ​  *(Analyze)* | Did you follow the key correctly? ​  *(Conclude)* |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**Conclude**

What did you use to determine what flavor of bean you had?

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What did you do to determine if you were correct?

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How can a dichotomous key be useful when classifying living things?

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