**Candy Cladistics**

**Purpose:** Use various types of candy to make a cladogram.

**Materials:** Variety of candies.

**Procedure:**

1. Look at your candy in your bag. Start figuring out a trait that all the candies have in common. This will be your common ancestral trait. Place it on the hash mark at the root of your cladogram.
2. If it helps, fill out the chart below to set up your cladogram. Use "X" if the candy fits the derived traits you've chosen.
3. Start with a derived trait that eliminates one candy. Continue to come up with traits that will eliminate one candy at a time until you've eliminated all by one type of candy.
4. Draw out your cladogram on 11"x14" paper. Use a ruler. Write in your derived traits along hash marks and place the appropriate candy at the terminal ends.
5. Put the names of all group members on the paper and call your teacher over to check your analysis. Submit a photo of your complete cladogram.

**Results:**

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| Type of Candy |  |  |  |  |  |  |  |  |
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| Totals:  |  |  |  |  |  |  |  |  |

**Cladogram:**

**Analysis:**

1. According to your cladogram, which type of candy is most closely related to the Tootsie pop? How do you know? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Which two types of candy are the least related? How do you know? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. According to your cladogram, which trait makes multicolored lollipop different from Tootsie pop? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_