Activity: Modeling Natural Selection

Materials:

- 1 large pack of milk chocolate M&M
- 11 x 17 colored paper
- Small, clean collecting container

Part 1

Directions:

1. **Do not eat any M&M’s until the activity is over.**
2. Spread a pack of sized M&M’s evenly on a 11x17 colored piece of paper. The different colors of each M&M will represent a different trait in a population and the color of the piece of paper will represent the environmental conditions. Record the number of each color of M&M’s in data table below under initial population.
3. Have at least one other member of your group “hunt” the M&M’s. Each hunting group member will start with their eyes closed. Once told, group members will open their eyes and select the **first** M&M they see and place it in the collecting container until 15 M&M’s have been collected.
4. Record the number of each color of M&M that were eaten (selected M&M’s) and how many survived (M&M’s left on the paper). Then calculate the survival percentage by dividing how many of each color survived by their initial population. Leave any of the surviving M&M’s on the paper for part 2.

Data:

<table>
<thead>
<tr>
<th>M&amp;M Color</th>
<th>Initial population</th>
<th>Amount eaten (selected)</th>
<th>Amount survived (left on paper)</th>
<th>Survival percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orange</td>
<td></td>
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<tr>
<td>Yellow</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Green</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Blue</td>
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<td></td>
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</tr>
<tr>
<td>Brown</td>
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</tbody>
</table>
Claim – Evidence - Reasoning

Claim: What “traits” in your M&M populations were being selected against during your simulation?

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Evidence: Support your claim by citing your data.

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Reasoning: Explain why that trait was being selected against and how it changed the overall population of your M&M’s.

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