Mathematical Modeling Activity with Dog Food Brands

Student Names:

Complete the following modeling components with your partner.

1. **Identify the Problem:** What dog food brand should you choose for your dog based on quality and price?

Write your thoughts below on how you think you will solve this problem:

2. **Make Assumptions and Identify Variables:**

Example: Is it necessary to narrow it down to one dog breed to focus on?

Write down additional factors/variables below to consider when solving the problem:

3. **Perform Mathematical Operations**

Research the cost of various dog food brands, considering your determined variables, such as the nutrition of the dog food and breed of dog. If you so choose, you may visit the AKC website to research breeds of dogs at www.akc.org/dog-breeds/. Decide on any calculations you may need to make and what form of mathematical approach you will take to showcase the data you collect (i.e. bar graph, line graph, histogram, table, etc.). Ensure you are labeling axes correctly and using correct scales.

Show any calculations or work below and attach a copy of your mathematical data representation to this packet.

4. **Analyze and Assess the Solution**

What dog food brand did you choose? Do your results address the problem accurately and do they make sense? Why or why not? Do you think you may have to revise your calculations and mathematical model? Explain in detail below.

5. Review

Repeat or revise your mathematical approach if necessary. Attach any revisions to the packet.
Explain your revisions below:

6. Implement

Share your results with your classmates either in an oral or visual presentation (Power Point, Prezi,
etc.). Decide on how you will best present your data and analysis. Brainstorm your ideas below:

Cite Sources in MLA Format

Please List Any Sources You Used Below in MLA Format: