Cutting Corners

Essential Question: What size cut will maximize the volume of a rectangular prism?

1. Make a conjecture:

I think the _____ cut will maximize the volume of the box because ...

I think the ________________ model will fit the data we gather best because ...

2. Consider the data collected by our class.

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<th>🙄</th>
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<tbody>
<tr>
<td>I notice ...</td>
<td>I wonder ...</td>
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a. What is the maximum volume found?

b. What are the dimensions of the rectangular prism with the maximum volume?
3. **Revisit and revise your conjecture:** Did your conjecture change? Why?

I think the ____ cut will maximize the volume of the box because ...

I think the _________________ model will fit the data we gather best because ...

4. **Grab a computer:**
   a. Log in to Desmos.
   b. Create a scatterplot and PAUSE to discuss the following:

   What type of function could we use to model the data?

**Resource Manager:** Call over Ms. Burke to share your group’s thinking and to get instructions for the next steps.

5. **Revisit and revise your conjecture:** Revisit your conjecture with partner before writing. Was it accurate? How would you change it based on what you know now?