

STUDENT GUIDE

ELABORATE 2 LESSON 13



Part 1: Our Motivation

Record what we were trying to figure out that led to this investigation.



Part 2: Making Predictions About Future Global Temperature Changes

Analyze the Greenhouse Gas Emissions by Sector data and share your predictions about how these trends will change in the future by completing the “Predicted Future Trends” column in the table below. List any of the factors that these trends are dependent upon in the “Dependent Factors” column.

Data Source	Predicted Future Trends	Dependent Factors
Dairy Industry Emissions Data		
EPA Emissions Data by Sector		



(continued from last page)

Data Source	Predicted Future Trends	Dependent Factors
Our World in Data Emissions by Sector		

Based on the data you analyzed and what you know about the dairy system, make a suggestion for how the dairy system could decrease its greenhouse gas emissions.



Part 3: Using a Computational Model to Make Predictions

Record the variables you changed to achieve less than 2°C of global temperature increase. Describe how each of these changes results in less greenhouse gas emissions in the future.

- To find out more information about what each variable means, click on the three-dot icon next to the variable name.

Variable Changed	How This Change Results in Less Greenhouse Gas Emissions in the Future

Reflect on your use of the computational model.

- Explain how the computational model was useful to understand how changing different industrial systems' contributions of greenhouse gases to the atmosphere can result in different future predictions of how global average temperatures will change.
- Explain what strengths and limitations this model has.