

# STUDENT GUIDE

## ANCHOR LESSON 1



### Part 1: Observing the Anchor Phenomenon

As you watch the video, record what you notice the individuals doing. What is their main argument?

They were pouring milk from the store on the floor in protest. They think that the dairy industry contributes to greenhouse gases in the atmosphere, and they harm and abuse cows for profit.

Do you agree with what the students were doing in the video? Why or why not?

Option 1:

I agree because the dairy industry does contribute to greenhouse gases in the atmosphere. Baby cows are taken from their mothers and cows are forcibly impregnated. They mentioned they have tried other democratic means, such as voting to make change and are doing this to get the industry's attention to make change.

Option 2:

I disagree because they are just wasting products and destroying property. They don't seem very vocal or passionate about their position. They don't seem super sure of their rights to pour out the milk and aren't doing a great job of explaining how pouring out milk relates to the changes they think need to happen. They mention that dairy emits more greenhouse gases than oil but don't support this statement with other facts or numbers. Never once do they mention climate change or any of the associated impacts. They mention that cows are mistreated by being taken away at young ages or forcibly impregnated, but this also happens in other agriculture industries. I wonder why they are singling out dairy.



Once all the media claims have been sorted, select ONE media claim from each of the three categories that stands out to you. Provide your reasoning for organizing the claim into that category.

Accurate	Undecided	Inaccurate
Claim 1 – The dairy industry contaminates water.	Claim 2 – I do not have enough information to determine what solutions the dairy industry has in place to reduce methane emissions.	Claim 3 – The dairy industry is destructive to the environment, but so are other industries. We shouldn't waste food to prove that point.

Share your organization of the claims and reasoning with the class as instructed by your teacher. In the space below, record parts of the reasoning you agree on with your peers and parts you disagree on.

Agree	Disagree
I agree with ___ about Claim 1, that the dairy industry contaminates water	I disagree with ___ about Claim 2. The dairy industry does not seem to be doing much to reduce climate change overall.



## Part 4: Writing an Initial Argument About Dairy's Impact on the Environment

Based on the arguments you have heard, take a position on if you think the dairy industry is helpful or harmful to the environment.

- Make an initial claim that describes if you think dairy is helpful/harmful to the environment.
- Support your claim with whatever evidence/reasoning you want to include.
- You can use the following prompts to start writing your argument.
  - “Dairy production is **helpful** to the environment. This is because... (evidence and reasoning from media claims or your own background knowledge.)”
  - “Dairy production is **harmful** for the environment. This is because (evidence and reasoning from media claims or your own background knowledge.)”

### Option 1 = Helpful:

Dairy production is helpful to the environment.

This is because, if Claim 2 is to be believed, there are solutions that exist to reduce enteric methane emissions. We also don't know if we are hearing the entire story about what dairy is or is not doing to the environment. Claim 7 stated that not all claims in the media are true – Oatly claimed, “dairy and meat industries emit more CO<sub>2</sub> than all of the world's planes, trains, cars, boats, etc. combined.” It was investigated and they were found to be “overstating” emissions because they did not account for emissions related to transportation, only when vehicles were driven. So, overall, maybe the media claims are only telling part of the story.

### Option 2 = Harmful:

Dairy production is harmful to the environment.

This is because they contribute to GHG emissions, as claim 3 suggested. The world's top 5 meat and dairy corporations are responsible for more GHG emissions than Exxon, Shell, or BP. The meat and dairy industries contribute as much to climate change as all the cars, trucks, planes, trains, and ships on Earth combined, around 14% as Claim 9 suggested. A single cow can release around 250-500 liters of methane each day. Industrial producers are responsible for releasing 3.1 gigatons of carbon dioxide each year and account for 44% of global anthropogenic methane. If it were a country, it would be the world's third-biggest emitter of greenhouse gases as discussed in Claim 6.



## Part 5: Sharing Initial Arguments

Share your initial arguments with the class as instructed by your teacher. In the space below, record parts of the argument you agree on with your peers and parts you disagree on.

Parts of the Argument We Agree On	Parts of the Argument We Disagree On
I agree with NAME that avoiding animal products entirely will positively impact the environment. There are so many plant-based alternative products these days and large corporations should support these instead of the dairy industry.	I don't agree with NAME that the dairy industry is playing an important role in helping reverse climate change. This is because not all farms are working to address sustainability in the same way.

What are the gaps in our initial argument that you want to figure out more about?

Now that I have heard other groups' claims and we discussed them with the class, I think my explanation is missing:

- Specific details about what the dairy industry does to try to improve the environment.
- Information about how the dairy system impacts climate change.
- Specific details about how the dairy system impacts the environment.
- Understanding of what problems the dairy industry is trying to address.



## Part 6: Asking Questions

In the space below, record what new questions you have that might help you understand more about whether these claims about the impact of dairy on the environment are accurate or inaccurate.

### Dairy Industry

- How does the dairy system work?
- What are the specific parts of the dairy system and what do they result in?
- Are there parts of the dairy system that impact the environment more than others?
- Other than producing food, what are other benefits of the dairy system?

### Greenhouse Gas and Climate

- How does the dairy industry impact greenhouse gases? How has it changed over time?
- How do dairy industry emissions compare to other industries?
- How do nitrous oxide and carbon dioxide in the atmosphere lead to climate change?
- What is the role of the dairy industry in methane emissions?
- How is enteric methane different from other forms of methane in the atmosphere?

### Biodiversity and Environment

- What impact does the dairy industry have on the environment?
- Can dairy ever help improve biodiversity, land use, and the environment?
- Are dairies using monoculture or polyculture farming practices?
- Why would they use a practice if it is not more environmentally friendly?
- Are there any other species that are being "helped" by the dairy industry?

### Dairy Industry Solutions

- What solutions exist for reducing enteric methane emissions?
- What are farmers doing to improve sustainability?
- What does the dairy industry have in place to help the environment?
- What is being done about reducing waste/manure on factory farms?

### Other

- How does the dairy industry increase greenhouse gases?

- How does animal waste in holding ponds get released into the atmosphere? What does it do to the environment?
- How do trucks from dairies contribute to emissions (compared to other industries)?
- What makes the meat and dairy industries such a huge contributor to climate change?
- What is the carbon footprint of the dairy industry?
- If only 3% of emissions come from livestock, where does the other 8% come from in agriculture? Is it transportation, production, etc.?
- What is the actual amount of CO<sub>2</sub> that the dairy industry emits?
- Are all animal products affecting the environment in the same way? How much of a role does dairy play?
- What are dairies doing to protect nature and set aside land?
- Are dairy farmers looking to make environmental improvements to their practices?