

NGC Activities

Tuesday AM Curriculum Session

Lesson 2: What factors have caused the rise in global temperature over the last century?

Claim, Evidence, Reasoning

- Claim: What do you know?
- Evidence: How do you know that?
- Reasoning: Why does your evidence support your claim?
- Is air matter?
- My dad's an alien!

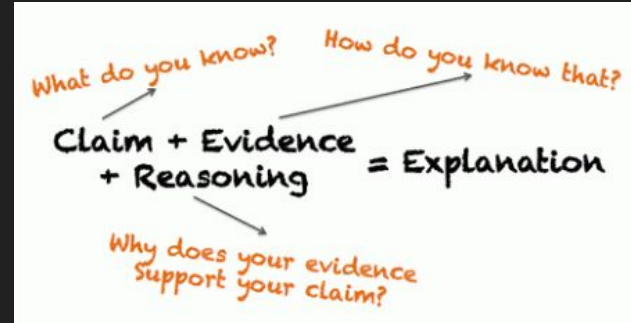


Activity 2: Claim, Evidence, Reasoning

- You will answer the question: What is causing the global average temperature on Earth to increase?
 - For each figure, write a brief summary. You will start with just two graphs at a time.
- Things to remember
 - This activity is not about having a debate
 - Scientists have already established that climate change is happening, it is real and it is human-caused.
 - Debating about the existence of climate change is bad practice and will lead to misconceptions for students.

Activity 2: Claim, Evidence, Reasoning

- Make a claim
 - Composting is good for the environment.
- Give evidence to support
 - Composting keeps organic waste out of landfills, turns it back into good soil, & reduces methane productions in landfills.
- Provide reasoning
 - My evidence supports my claim because food waste takes up a lot of space in our landfills. As it decays it produces a lot of methane gas in landfills. When composted material has time to decompose on its own, it turns back into good, rich soil that can be used in gardens and farms.

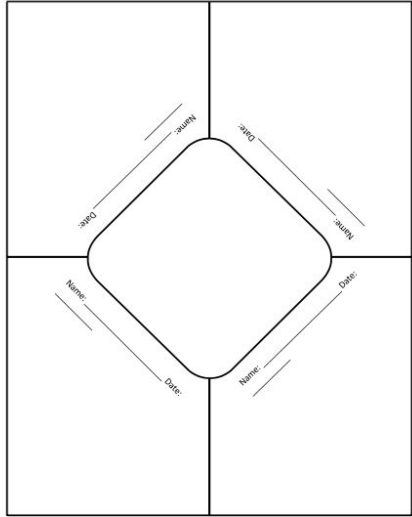


Activity 2: Claim, Evidence, Reasoning

Discussion Diamond worksheet

- Finished product: summary of all claims and evidence
- Groups of 5: Each group member shares their claim and evidence.
- Develop 2 clarifying questions to ask each presenter.
- Discuss evidence and if other group members altered their own claim.

Discussion Diamond Worksheet



The diagram shows a large square divided into four quadrants by a vertical and a horizontal line. In the center of the square is a diamond shape. Each of the four corners of the square is labeled with 'Name:' and 'Date:'. The labels are positioned such that the 'Name:' label is closer to the corner and the 'Date:' label is further from the corner, with lines connecting them to the diamond's vertices. Specifically, the top-left corner has 'Name:' on the left and 'Date:' on the top; the top-right corner has 'Name:' on the right and 'Date:' on the top; the bottom-left corner has 'Name:' on the left and 'Date:' on the bottom; and the bottom-right corner has 'Name:' on the right and 'Date:' on the bottom.

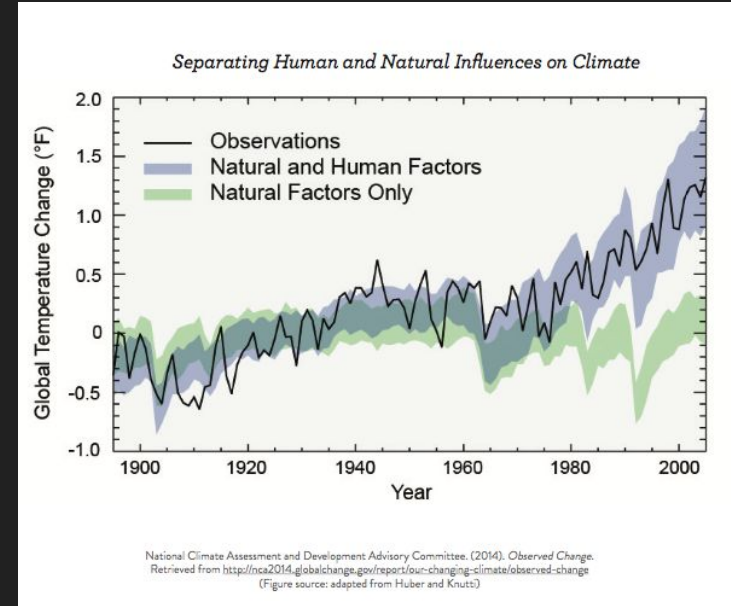
Copy Master - Discussion Diamond Worksheet

CLIMATE GENERATION A WILL STEGER LEGACY

51

Activity 2: Conclusion

- Write your interpretation of this figure (pg 52)
- What do each of the lines/colors represent?
- What are the contributing factors to those lines? (think back to the activity and our list)



NGSS Cards

Find the CCC and SEP that were seen in this activity



Lesson 3: What are the repercussions of the rise in global temperature?

Lesson 3: 10 Indicators of a Warming World

- Hanging around the room at 10 Indicators of a Warming World — information from the National Climate Assessment
- Using the worksheet in your folder, you will visit each sign and answer the questions
 - What evidence about this indicator have you seen or read about?
 - What could be the impact of this indicator on wildlife, cities, etc.?
 - How is this indicator impacting you or your community?
- Let's do one together...

Lesson 3: 10 Indicators of a Warming World

- Are there more indicators than just these?
 - Have you seen any of these in your city/state?
 - How would you modify this activity for your educational setting?
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- After this introductory activity, the students use the National Climate Assessment to research the repercussions where they live.
<http://nca2014.globalchange.gov/>

NGSS Cards

Find the CCC and SEP that were seen in this activity



Lesson 5: In what ways can the repercussions of climate change be minimized?

Lesson 5: Impacts, Mitigation, & Adaptation

Adaptation vs. Mitigation

Adaptation- Seeks to lower the risks caused by climate change

Mitigation- Addresses the root causes of climate change by taking action to reduce greenhouse gas emissions

Both approaches will be necessary because even if emissions are dramatically decreased in the next decade, adaptation will still be needed to deal with the global changes that have already been set in motion

Lesson 5: Impacts, Mitigation, & Adaptation

- Two signs up on the wall. “Impacts of Climate Change” and “Actions to Combat Climate Change”
- Read your prompt with your group and discuss which sign best fits your prompt, and be able to justify your response.
- Move to that side of the room and share your prompt with the class.

Lesson 5: Impacts, Mitigation, & Adaptation

- People in the “Actions to Combat Climate Change” side come forward and place your prompt in the Venn diagram that best describes your prompt
- Describe to the class why you put your prompt there
- People with the “Impacts of Climate Change” statements should decide if this action would combat their impact. If it does, add it to the same circle on the Venn diagram

Lesson 5 Discussion

- Why did you place your impact and actions where you did?
- Can you come up with other examples?
- Think of your own mitigation, adaptation, and impact from your area—If you need help go to National Climate Assessment online.
<http://nca2014.globalchange.gov/>

What is the best option for minimizing the repercussions of climate change?

- Claims- Think of a solution to climate change.
- What do you take into account? Science? Economy? Equity? How do we determine what are the best solutions?
- What criteria should we follow? Who decides the criteria?

NYC Article

- What does equity look like in a climate justice context? Who gets to define it?
- Who is affected disproportionately?
- How do we approach solutions to include everyone?

NGSS Cards

Find the CCC and SEP that were seen in this activity



Reflection Time

How do you see yourself using these activities in your classroom?

What do you need to implement these activities?