

## Essay and Discussion Questions

# Climate Change High School Questions

Help students understand how climate change poses an extraordinary threat to the planet and its inhabitants through these essay and discussion questions.

## Understanding the Causes of Climate Change

1. How does the greenhouse effect work? Why is it becoming a concern?
2. What is a feedback loop? What is the difference between a positive feedback loop and a negative one?
3. What are some examples of climate tipping points? Why are tipping points so important to understand?
4. How have human activities contributed to climate change?
5. What are the different methods of accounting for greenhouse gas emissions? What information does each method capture?
6. How do the different methods of counting emissions shape our understanding of who bears responsibility for climate change? How do you think we should determine who bears responsibility?
7. Why are scientists so concerned with what they are observing in Greenland? How does climate change create an unhealthy melting cycle in Greenland?

## How to Mitigate Climate Change

1. What are the five major sectors that cause emissions? What are the major causes of emissions in each sector?
2. What is holding us back from mitigating greenhouse gas emissions? What can we do about it? What patterns do you see comparing the five major sectors to each other?
3. In your opinion, what actions could the government or society take that would be most effective at reducing the emissions caused by you and people you know?
4. What are some actions you could take in your life to help mitigate your own greenhouse gas emissions?

## How the World Can Adapt to Climate Impacts

1. What are some examples in your life of how climate change has cost you or your community money or time? Consider effects on infrastructure, food and water security, local ecosystems, and other areas. What adaptations are being considered or implemented in your community? How effective have those adaptations been? What obstacles have they faced?
2. Why will the economic costs of climate change hit some communities and regions harder than others? How do you think policymakers should account for this disparate impact as they think about addressing climate change?
3. Why is biodiversity, even in far away ecosystems, important? How can a loss in biodiversity affect us?
4. What does it mean to say climate change is a “threat multiplier”? Consider an ongoing conflict in the news today: in what ways can you see climate change acting as a threat multiplier in the causes of the conflict, or the way in which the conflict is unfolding?
5. What rights do climate migrants have under international law? How do these differ from the rights accorded to other categories of migrants? Do you think climate migrants should have more rights? Why or why not? What might stand in the way of climate migrants being granted more rights under international law?

## Climate Policy: Opportunities and Obstacles

1. What are the advantages and disadvantages of taxes, subsidies, and cap-and-trade schemes? How can a

carbon border adjustment mechanism complement these policies?

2. If you were a policymaker for your community or country, what market-based policies (consider taxes, subsidies, cap-and-trade schemes, and carbon border adjustment mechanisms) would you suggest using to reduce emissions? Why?
3. What is a collective action problem? What makes climate change a collective action problem? How do international climate agreements attempt to address the challenge of free riders?
4. How do you think policymakers negotiating international agreements should determine which countries are most responsible for addressing climate change? How might an international agreement be written to enforce this decision?
5. Choose an example of a climate agreement you think has been successful. How did it work? What made it successful?
6. How does the Paris Agreement work? What is a nationally-determined contribution? What is “ratcheting up”?
7. In the Paris Agreement, what are the benefits of letting each country decide its own Nationally Defined Contribution (NDC)? What are the limitations of this approach? Why do you think negotiators chose this approach, rather than negotiating each country’s responsibility as they did in the Kyoto Protocol?

## Energy Challenges

1. What kinds of risks do countries face to their energy security? What can they do about those risks?
2. Of the approaches discussed in the video for strengthening energy security, which do you think are most practical? Which would be most effective?
3. What challenges do countries face in trying to increase their energy security?

## Geoengineering and Artificial Intelligence

1. What is geoengineering? What are the two broad types of geoengineering?
2. What are some of the concerns around geoengineering? Do you think geoengineering is worth pursuing in spite of these risks?
3. Why is making effective rules about geoengineering so important? To what extent do you think effective rules around geoengineering could mitigate risk?
4. Why is it important to consider how advancements in AI might impact the future of climate change? What are some important aspects for policymakers to consider about AI in relation to climate change?
5. Do you think it is worth investing in AI as a means of fighting climate change? Why or why not?