OUR CLIMATE OUR FUTURE

CLASSROOM DISCUSSION GUIDE

SYNOPSIS

This guide supports teachers to lead a discussion in their classroom after watching the Our Climate Our Future full video or any of the chapter videos. It contains a series of questions designed to spark conversation and further learning about the concepts introduced in Our Climate Our Future, such as “People who are the least responsible for climate change are often the ones who suffer the most from it. Why is this true? How does this make you feel?”. The discussion guide also includes links to additional resources for further information.

TOTAL TIME

10-45 minutes (Individual Chapters and Full Experience available)

CONTEXT VIDEO

Our Climate Our Future (Full Experience) (41:00 min)

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OVERVIEW

1. What was your favorite part?

2. What surprised you?

3. How do you feel after watching Our Climate Our Future? (Hopeful, scared, bored...)

4. In what ways were young people featured throughout Our Climate Our Future?

5. Can someone give a short summary of how humans are causing climate change?

CHAPTER 2: LIVING LARGE

1. What does it mean that "just by living in the U.S., we are all living large"? How do people in other countries live "smaller" in comparison?

Our lives require a lot of energy and resources – energy and materials to make all our stuff, energy to get us around and heat our homes, space for our garbage. Check out this Scientific American article on just how large. Use this opportunity to discuss lifestyles in other countries, whether it's living closer together in big cities or living by growing their own food and how that creates a smaller impact.

CHAPTER 3: FOSSIL FUELS AND CO_2

1. How are fossil fuels used in the food we eat?

Our food relies on fossil fuels in many ways. Crops that we eat directly (fruits and vegetables) require fertilizer, which is made with natural gas. If those crops are being used to feed an animal, like a cow, then there's even more energy required to raise and butcher the cow. Fossil fuels are also used in transporting and storing our food. Learn more from Sustainable Table.

2. Where do fossil fuels like coal, oil, and natural gas come from?

Ancient plants and organisms from millions of years ago were slowly buried over time. The heat and pressure transformed the once-living organisms into fossil fuels. Coal was formed from land-based, swampy environments during the Carboniferous Period (360-300 million years ago) and oil and gas were formed from plankton in the ocean around the same time. Check out this National Geographic article from Robert Krulwich (of Radiolab fame) on how it happened that so much coal was created during the Carboniferous.

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CHAPTER 3: FOSSIL FUELS AND CO_2 (CONTINUED...)

3. Is CO2 natural? Is it necessary to life on Earth?

Yes! CO2 is necessary for life on Earth and exists naturally. CO2 moves in and out of the atmosphere, lithosphere, hydrosphere, and biosphere as part of the carbon cycle. CO2 is essential for photosynthesis and acts as a greenhouse gas, keeping the Earth warm enough to sustain life as we know it. However, too much CO2 can overwhelm the natural carbon cycle, changing climate faster than life on Earth can adapt.

4. Are there natural causes of climate change? Can you think of any?

Changes in the Sun's output, volcanic activity, large meteor impacts and changes to the shape of Earth's orbit are all natural causes of climate change. Explore more on natural causes of climate change from NASA.

5. Do you think these natural causes are still influencing today's climate?

Yes, but they're operating in the background compared to human-produced CO2. Natural changes in Earth's climate typically happen over thousands of years, whereas human-caused climate change is occurring over decades. Explore the answer further from the IPCC and from the Union of Concerned Scientists.

CHAPTER 4: CO_2 AND CLIMATE CHANGE

1.. What are the impacts of climate change that you have witnessed, either at home or in other places?

Examples include sea level rise, intense storms, droughts, flooding, wildfires, less snow, and worse air pollution and pollen allergies.

2. People who are the least responsible for climate change are often the ones who suffer the most from it. Why is this true? How does this make you feel?

This is the concept of climate justice. Climate justice addresses the fact that the impacts of climate change are disproportionately felt by the very people who are least responsible for contributing to climate change, including those who are low-income, people of color, people in developing countries, Native people, and youth. Understanding who is most impacted by climate change, how and why they're most impacted, allows us to create the most effective solutions to addressing the climate crisis. Learning about climate justice also uncovers the important and empowering fact that communities on the frontlines of climate change impacts are also on the forefront of climate change solutions and are uniquely equipped to lead. Learn more in the lesson plan, Introduction to Climate Justice.

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CHAPTER 5: REAL WORLD IMPACTS

1. **Chicago:** Why do you think people of color have historically been left out of the conversation about climate change?

There are many reasons for this, some extending far back into our country's history with slavery, colonialism, and racism. This is an opportunity for a class conversation around climate change, race and environmental justice. Students can read "The Climate Change Debate: Black People Are Being Left Out and That Can Be Deadly" in The Root for an overview of this issue.

2. **Georgia:** How can climate change cause both flooding and drought?

As climate change warms the planet, the extra heat in the climate system intensifies the water cycle, causing more extreme flooding as well as droughts. Warm air holds more moisture, allowing for bigger storms during wet times. And during droughts, warm air causes more evaporation, worsening the drought. Read more on the EPA's What Climate Change Means for Georgia (PDF).

3. **Puerto Rico:** How was it particularly difficult for Puerto Rico as an island and a U.S. territory to recover after Hurricane Maria in 2017?

As an island, it was harder to get supplies delivered to Puerto Rico after Hurricane Maria. As a U.S. territory, Puerto Rico does not have representation in Congress and therefore very little political power, which meant that it did not receive the attention or resources the island needed in the wake of the crisis.

CHAPTER 6: IS IT REAL?

1. Have you encountered people who say climate change isn't happening? What do you say?

Check out the Have the Talk: Climate Conversations lesson plan, including The Secret to Talking About Climate Change video.

CHAPTER 7: THE BIG PICTURE

1. What do you think aliens would think and do if they were watching what's happening on our planet?

Opportunities abound for discussion on this one!

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CHAPTER 8: THE SOLUTIONS

1. How do renewable energy sources differ from fossil fuels? How does renewable energy require resources to work? How does this differ from the resources fossil fuels requires?

Renewables don't require a source material to produce energy – that source is the Sun, wind or water. Renewables do require materials to build the solar panels and wind turbines, which has its own carbon footprint. It's just far, far less than fossil fuels. Learn more from Carbon Brief.

2. What are some of the costs of NOT addressing climate change? How do you think those compare to the costs of taking action? How do the human health impacts of climate change play a role?

This is a great opportunity for a class discussion about the costs of action or inaction on climate change. Many economists argue that inaction on climate change is far costlier than action – up to 20% of GDP.

3. What are other benefits to addressing climate change, beyond the positive impact on the environment?

There are lots of added benefits, urning less fossil fuels reduces other pollutants (ozone, particulate matter, mercury) that are harmful to human health.

CHAPTER 9: THE MOVEMENT

1. Which one of the climate solutions shown here got you most excited? Were there solutions that you could implement at your school?

CHAPTER 10: TAKE ACTION

1. What's one thing we each can do about climate change? As a class? As a school?

Check out the Teacher Resources page for lesson and project plans on climate solutions.

OUR CLIMATE OUR FUTURE

SHARE YOUR CLIMATE STORY WITH ACE

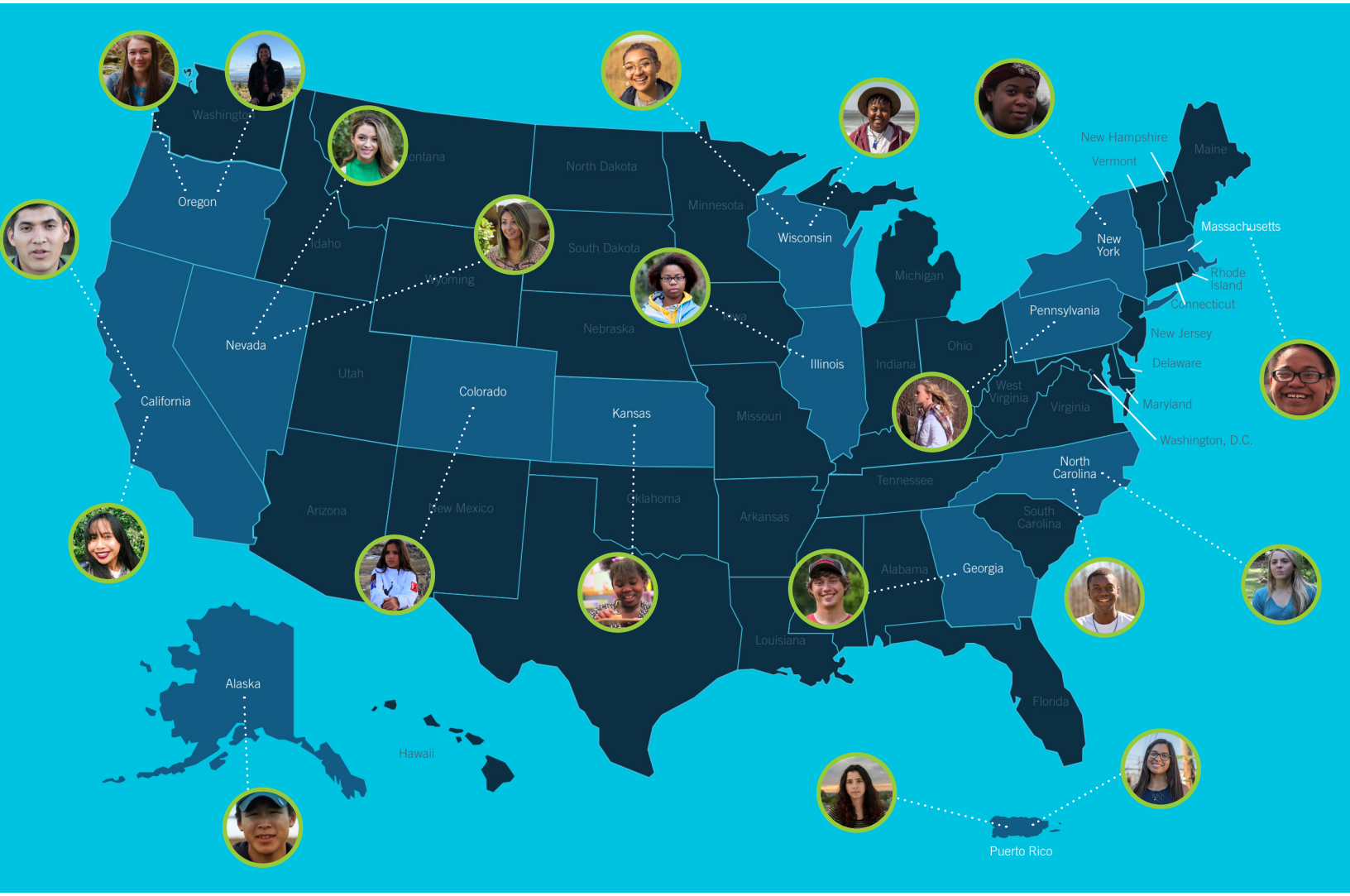
HELP US DOCUMENT CLIMATE IMPACTS AND YOUNG PEOPLE TAKING CLIMATE ACTION ACROSS AMERICA

WHAT'S YOUR CLIMATE STORY?

Climate change is a story – a story about our families and our communities.

How is climate change affecting your life?

Help us document what climate change looks like for young people around the country and what they're doing to take action.



CLICK HERE TO SHARE YOUR STORY NOW

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