Climate and Environmental Justice Monthly Planning Guide for LINKS Chapters

September 2022

A collaborative partnership between the National Wildlife Federation and The Links, Incorporated

Overview

Monthly Theme	Environmental Awareness Days	Cultural and Identity Awareness Days
Climate Change and the Climate Movement History	World Water Monitoring Day (18) National Estuaries Week (19-26) National Public Lands Day (25)	Hispanic Heritage Month

Elementary	1. Activity 1: What is Climate Change?: Review climate change concepts 2. Activity 2: Climate Stories: How is climate change affecting young people across the United States?
Middle and High School	1. Activity 1: What is Climate Change?: Review climate change concepts 2. Activity 2: Climate Stories: How is climate change affecting young people across the United States? 3. Activity 3: Climate Change Mixer

Mentoring Moment Suggestions

Seek out passionate volunteers, activists, elders, and Indigenous members of the community; consider accessing the expertise of earth scientists, climatologists, ecologists, and local climate justice organizations.

Climate Change: Science and Stories

ELEMENTARY ACTIVITIES

SUMMARY
Youth will spend time reviewing resources that explain the key concepts of climate change. After discussing the science behind the changing climate, they will watch stories from youth whose lives are being affected by climate change. These activities and discussions can take place over multiple sessions.

MATERIALS
- Internet connection and computer or tablets
- Infographic/Reading: A Guide to Climate Change for Kids [NASA]
- Video: Fossil Fuels and Climate Change
- Video: Climate Change: Earth's Giant Game of Tetris
- Youth Stories: Climate Stories Map [Our Climate Our Future]
- Optional Activity: Coloring Pages [Our Climate Our Future]
- Coloring pencils or markers (for optional activity)

BACKGROUND
Climate change refers to long-term shifts in temperatures and weather patterns. These shifts may be natural, such as through variations in the solar cycle. But since the 1800s, human activities have been the main driver of climate change, primarily due to burning fossil fuels like coal, oil and gas.

Burning fossil fuels generates greenhouse gas emissions that act like a blanket wrapped around the Earth, trapping the sun's heat and raising temperatures.[1]

WHAT TO DO
Part 1: *What is Climate Change?* [30-45 minutes]

1. Before engaging with the videos and resources, ask students the following questions. Create a KWL chart for the group or ask students to draw one in their journals (students will complete the K and W sections now); or use a similar tool to capture their knowledge and questions.
    - How is the climate changing?
    - What is climate change?
    - How is climate change affecting people and communities around the world?
    - What is the climate movement?

[1] United Nations, Climate Action; https://www.un.org/en/climatechange/what-is-climate-change

2. Pass out the Guide to Climate Change for Kids and ask students to read it. If time allows, students can pair up to share their questions or reflections about the reading.

3. Watch the two short videos: Video: Fossil Fuels and Climate Change and Climate Change: Earth's Giant Game of Tetris.

4. **Discussion:** Summarize the key concepts that were outlined in the videos and refer back to the KWL chart. Use these questions below to begin a discussion with the whole group. Students can complete the L section of their charts.

- What did you already know about climate change? What new things did you learn?
- What are fossil fuels? What are greenhouse gases?
- How have humans altered the carbon cycle?
- What do you want to know more about?

Part 2
Climate Stories: How is climate change affecting young people across the United States? [30-45 minutes]
1. Watch a few of the stories/videos on the Climate Stories Map.

2. Reflect on the stories that the group watched.

- How are these young people taking climate action in their communities?
- How did hearing these stories make you feel?

Part 3 [optional]: **Art, Journaling, or Coloring Activity** [~20 minutes]
Climate change is a complex subject and can bring up feelings of anxiety and confusion. To help students process their feelings, encourage them to spend quiet time writing or drawing.

1. To reinforce students' learning, pass out the Our Climate, Our Future coloring pages and coloring pencils or markers.
2. Students can also sketch or free write in their journals during this time.

ADDITIONAL RESOURCES

- Video: Climate Change (according to a kid)
- Video: Climate 101 w/ Bill Nye
- Climate Action Starter Guide [Kids Fight Climate Change]

Climate Kids

A Guide to Climate Change for Kids

National Aeronautics and Space Administration

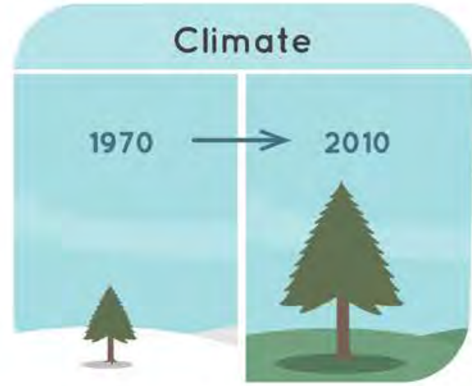
Have you heard your parents or people in videos talking about climate change? Ever wondered what it is and why we care about it so much? NASA scientists have been studying Earth's climate for more than 40 years. We used what we've learned in that time to answer some of your biggest questions below!

What is the difference between weather and climate?

The main difference is time. Weather is only temporary. For example, a blizzard can turn into a flood after just a few warm spring days. Climate, on the other hand, is more than just a few warm or cool days. Climate describes the typical weather conditions in an entire region for a very long time — 30 years or more.

What is climate change?

Climate change describes a change in the typical weather for a region — such as high and low temperatures and amount of rainfall — over a long period of time. Scientists have observed that, overall, Earth is warming. In fact, many of the warmest years on record have happened in the past 20 years. This rise in global temperature is sometimes called global warming.

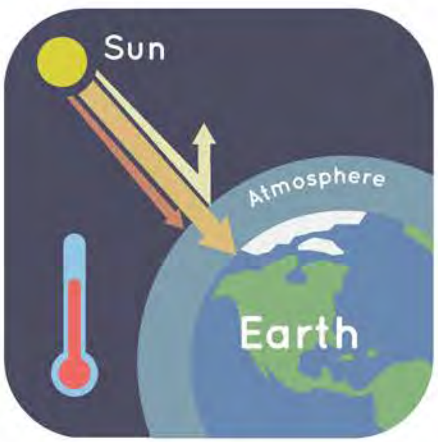


How do we know Earth's climate is getting warmer?

Scientists have been observing Earth for a long time. They use NASA satellites and other instruments to collect many types of information about Earth's land, atmosphere, ocean, and ice. This information tells us that Earth's climate is getting warmer.

Why is Earth warming?

Some of the gases in Earth's atmosphere trap heat from the Sun — like the glass roof and walls of a greenhouse. These greenhouse gases keep Earth warm enough to live on. But human activities, such as the destruction of forests and burning fossil fuels, create extra greenhouse gases. This traps even more of the Sun's heat, leading to a warmer Earth.

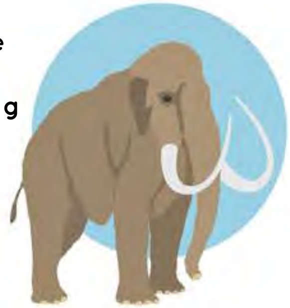


What does carbon have to do with it?

Carbon is in all living things on Earth. As plants and animals die, they get buried in the ground. After enough years, these squished underground remains can turn into fossil fuels, such as coal and oil. When we burn those fuels, the carbon that was in the ground goes into the air as a gas called carbon dioxide, or CO_2. Plants and trees can absorb some of this extra carbon dioxide. But a lot of it stays in the atmosphere as a greenhouse gas that warms up the planet.

Has the climate ever changed before?

Yes, but this time is different. Over millions of years, Earth's climate has warmed up and cooled down many times. In the past, Earth often warmed up when the Sun was very active. But nowadays, we can carefully measure the Sun's activity. We know Earth is warming now, even when the Sun is less active. Today, the planet is warming much faster than it has over human history.

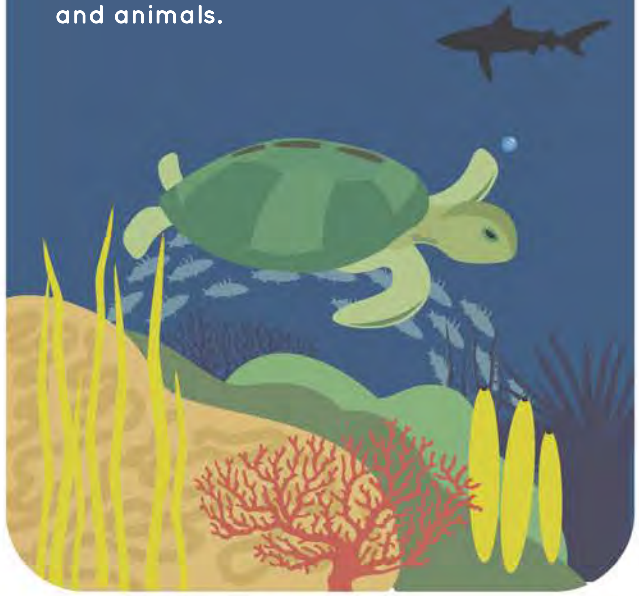


How are scientists studying climate change?

Scientists study Earth's climate using lots of tools on the ground, in the air, and in space. For example, NASA satellites are orbiting Earth all the time. They measure carbon dioxide in the atmosphere. They monitor melting ice and measure rising seas and many other things, too. This information helps scientists learn more about Earth's changing climate.

It doesn't feel hotter where I live. Why does climate change matter?

The average air temperatures near Earth's surface have gone up about 2 degrees Fahrenheit in the last century. A couple of degrees over a hundred years may not seem like much. However, this change can have big impacts on the health of Earth's plants and animals.



What can I do?

Climate change seems big, but it's something that we can learn about and work on together! NASA's scientists are studying and monitoring climate change — and there are a few ways you can help them learn more.

What does climate change do to the ocean?

As Earth warms, NASA has observed that sea levels are rising. This is partly due to melting ice. Glaciers and ice sheets are large masses of ice that sit on the land. As our planet warms, this ice melts and flows into the oceans. More water in the oceans makes sea level higher. Also, water expands as it gets warmer. So, warm water takes up more room in our oceans — making sea levels higher.

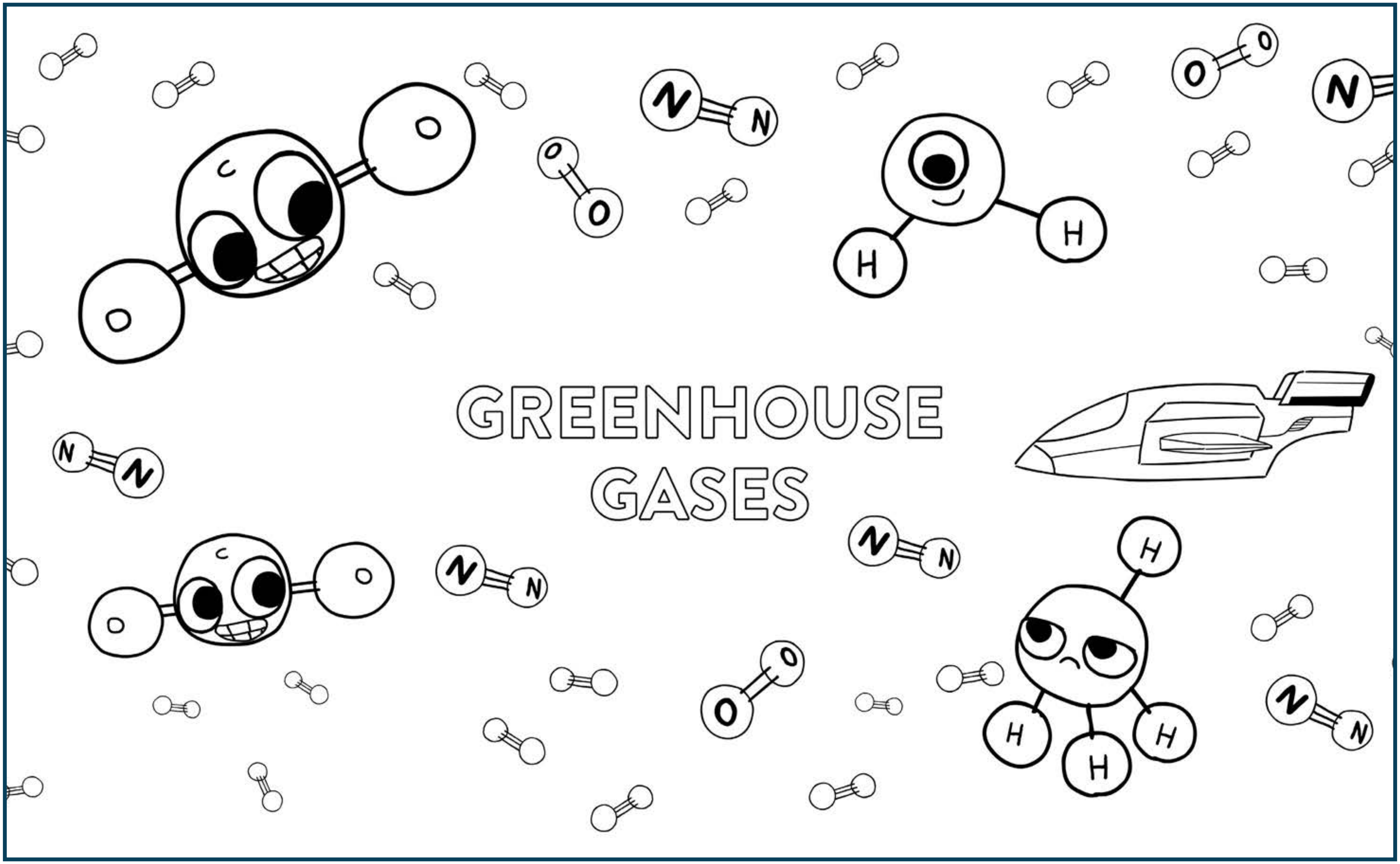
The properties of ocean water are also changing. One change is called ocean acidification and it can be harmful for plants and animals. Scientists have observed that the ocean is becoming more acidic as its water absorbs carbon dioxide from the atmosphere.

Learn. Have more questions about climate change? Read, play, and watch more about it on the NASA Climate Kids website: climatekids.nasa.gov

Do. Want to collect real data for climate scientists? Check out these NASA citizen science projects to see how you can contribute to what we know about our planet: science.nasa.gov/citizenscience

Some examples include:
- Globe Observer
- Community Snow Observations
- Air Quality Citizen Science

OUR CLIMATE OUR FUTURE: COLORING PAGES



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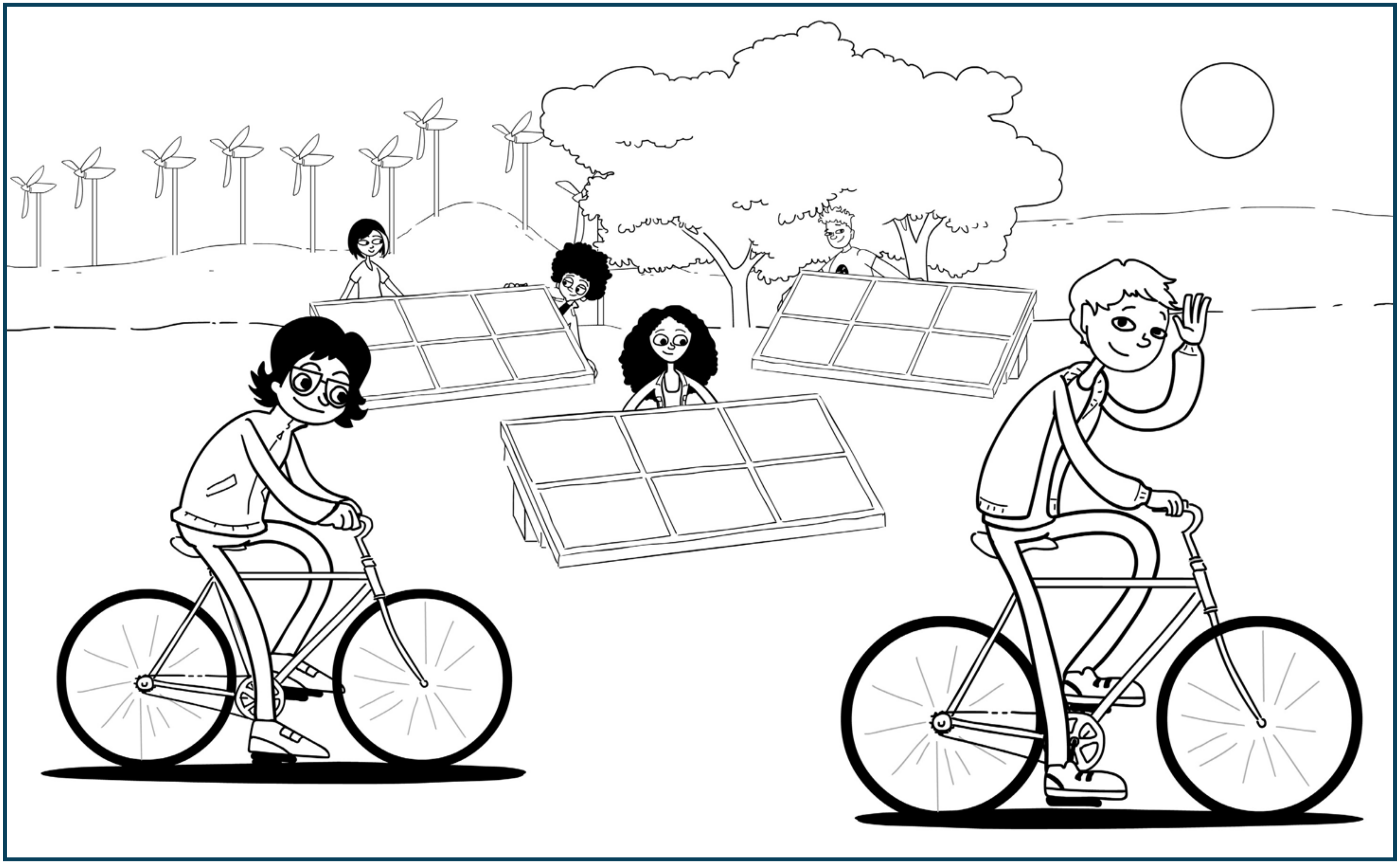

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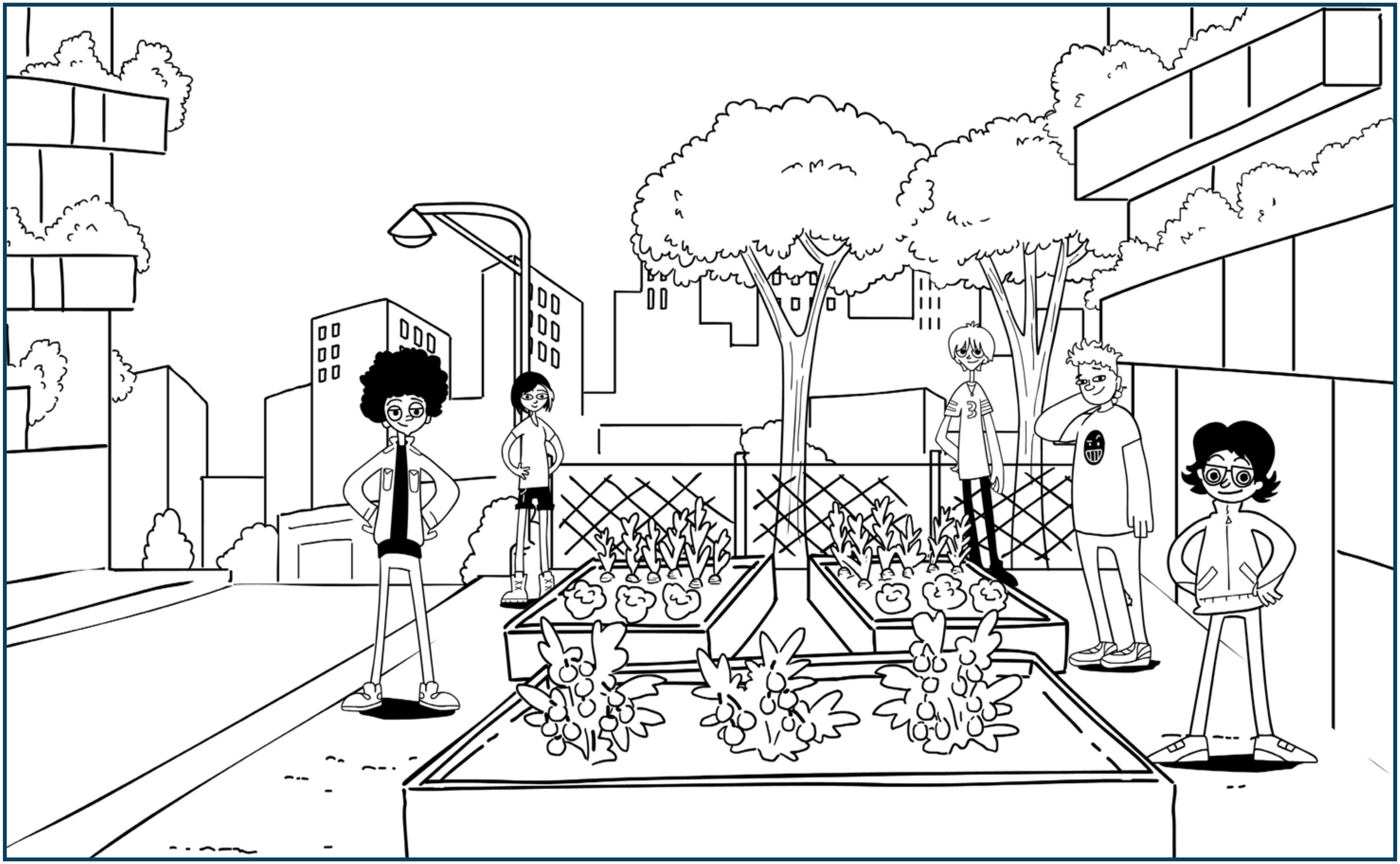


Climate Change: Science and Stories

MIDDLE AND HIGH SCHOOL ACTIVITIES

SUMMARY

Youth will spend time reviewing resources that explain the key concepts of climate change. After discussing the science behind the changing climate, they will watch stories from youth whose lives are being affected by climate change. In the final activity, students will participate in a role-playing activity that will introduce them to individuals around the world and learn how climate change is impacting them. These activities and discussions can take place over multiple sessions.

MATERIALS

- Internet connection and computer or tablets
- Article: What is Climate Change: A Really Simple Guide [BBC]
- Video: Climate Change Basics [EPA]
- Video: Climate Change: Earth's Giant Game of Tetris
- Youth Stories: Climate Stories Map
- Lesson Plan: Climate Mixer [Zinn Education Project]

BACKGROUND

Climate change refers to long-term shifts in temperatures and weather patterns. These shifts may be natural, such as through variations in the solar cycle. But since the 1800s, human activities have been the main driver of climate change, primarily due to burning fossil fuels like coal, oil and gas.
Burning fossil fuels generates greenhouse gas emissions that act like a blanket wrapped around the Earth, trapping the sun's heat and raising temperatures.[1]

WHAT TO DO

Part 1: *What is Climate Change?* [30-45 minutes]
1. Before engaging with the videos and resources, ask students the following questions. Create a KWL chart for the group or ask students to draw one in their journals (students will complete the K and W sections now); or use a similar tool to capture their knowledge and questions.

- How is the climate changing?
- What is climate change?
- How is climate change affecting people, communities, or ecosystems around the world?

[1] United Nations, Climate Action; https://www.un.org/en/climatechange/what-is-climate-change

- What is the climate movement?

2. Pass out the BBC article, What is Climate Change: A Really Simple Guide, and ask students to read it. If time allows, students can pair up to share their questions or reflections about the reading.

3. Watch the two short videos: Video: Climate Change: Earth's Giant Game of Tetris and Fossil Fuels and Climate Change.

4. Discussion: Summarize the key concepts that were outlined in the article and videos and refer back to the KWL chart. Use these questions below to begin a discussion with the whole group. Students can complete the L section of their charts.

- What did you already know about climate change? What new things did you learn?
- What are fossil fuels? What are greenhouse gases?
- How have humans altered the carbon cycle? What are some solutions to climate change?
- What do you want to know more about?

Part 2
Climate Stories: How is climate change affecting young people across the United States? [30-45 minutes]

1. Watch a few of the stories/videos on the Climate Stories Map.

2. Reflect on the stories that the group watched.

- How are these young people taking climate action in their communities?
- How did hearing these stories make you feel?
- How is climate change currently impacting our community? How might it impact our community in the future?

Part 3: Climate Change Mixer [45-60 minutes]
1. Explain that students will participate in a role-playing activity. They will play the role of an individual and meet other individuals from around the work, each of whom is affected differently by climate change. While meeting others, they will complete the worksheet.

2. Find full instructions and role cards attached.

3. Be sure to leave time to debrief after this activity. Use the following questions to guide a discussion.

- Who did you meet, or what situations did you hear about, that surprised you? Did you have any "aha's" while talking with people?
- Did anyone make you angry? Who?
- What themes seemed to come up in your conversations?
- Who did you meet or which situations did you hear about that gave you hope?

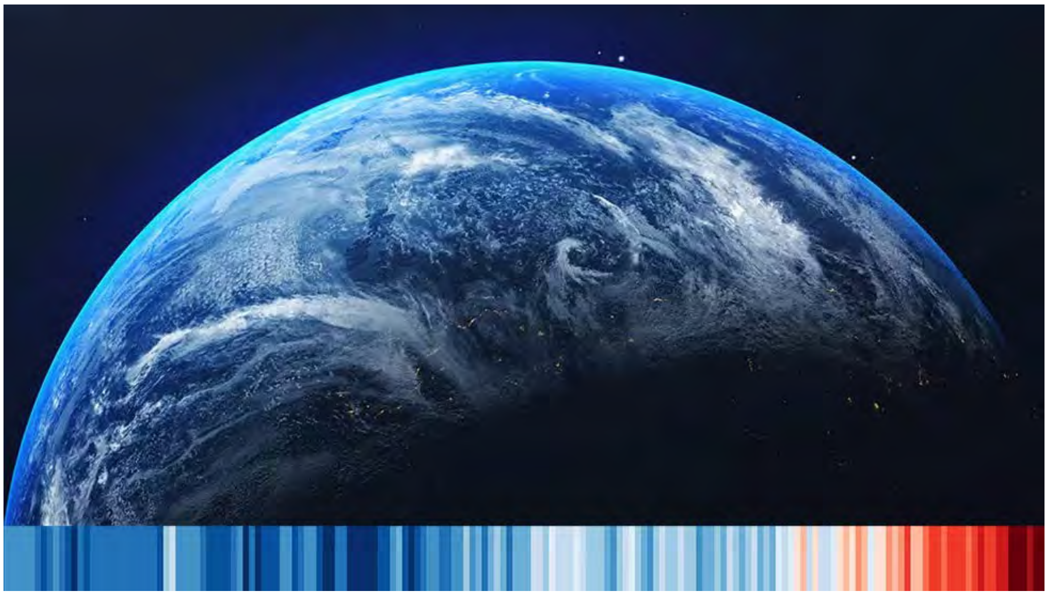
ADDITIONAL RESOURCES

- Reading: 12 Important Moments in the History of Climate Action: In Photos [Global Citizen]

www.bbc.com /news/science-environment-24021772

What is climate change? A really simple guide

BBC News : 6-8 minutes : 10/13/2021



World temperatures are rising because of human activity, and climate change now threatens every aspect of human life.

Left unchecked, humans and nature will experience catastrophic warming, with worsening droughts, greater sea level rise and mass extinction of species.

We face a huge challenge, but there are potential solutions.

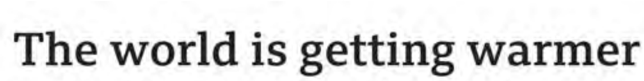
What is climate change?

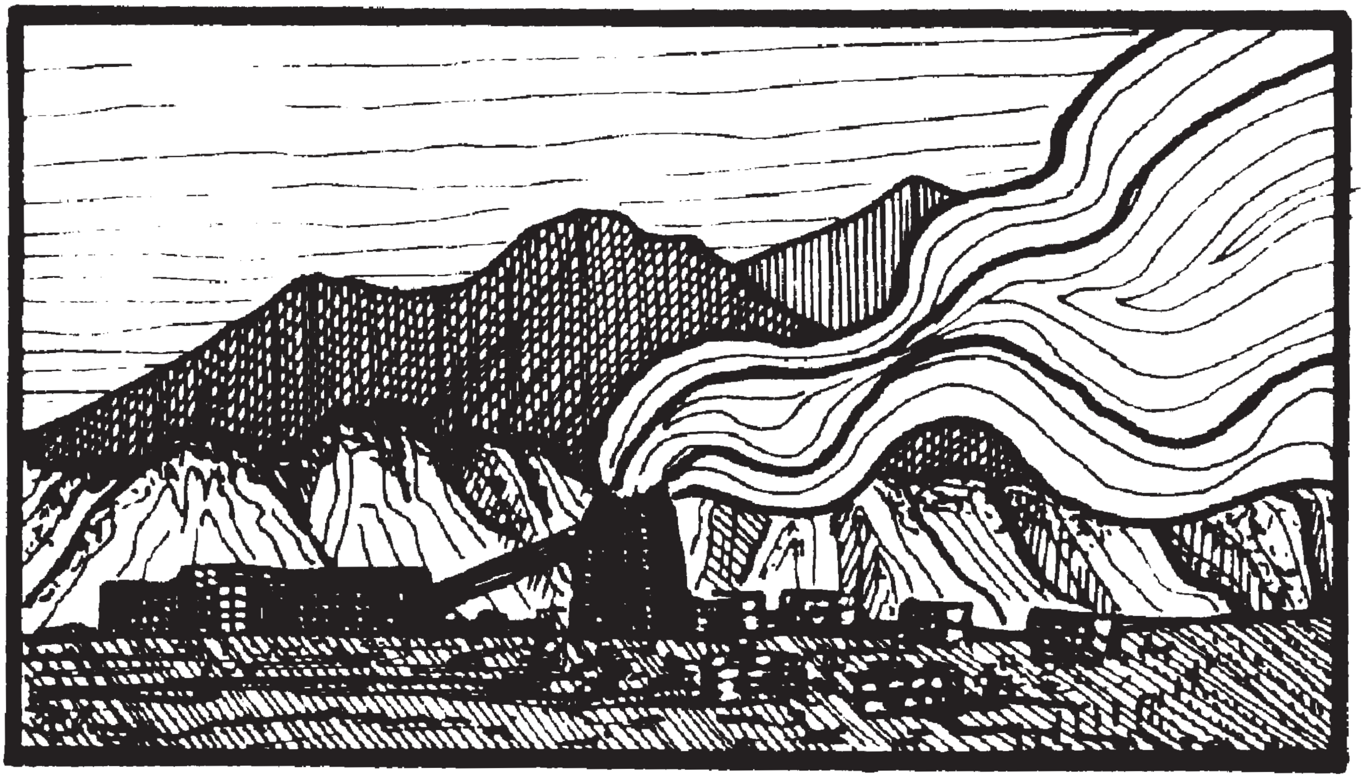
Climate is the average weather in a place over many years. Climate change is a shift in those average conditions.

The rapid climate change we are now seeing is caused by humans using oil, gas and coal for their homes, factories and transport.

When these fossil fuels burn, they release greenhouse gases - mostly carbon dioxide (CO_2). These gases trap the Sun's heat and cause the planet's temperature to rise.

The world is now about 1.2C warmer than it was in the 19th Century - and the amount of CO_2 in the atmosphere has risen by 50%.





RINI TEMPLETON

Stories from the Climate Crisis: A Mixer

BY BILL BIGELOW

No doubt, climate change affects everyone, everywhere. But not equally. Through role play, the Climate Change Mixer introduces students to 22 individuals around the world—each of whom is affected differently by climate change. For some, climate change threatens to force them to leave their land. For others, it is a business opportunity. In this activity, students meet one another in character and learn about the impact of climate change in their lives—and how each is responding.

Materials Needed:

- Mixer roles, cut up. One for every student in the class.
- Blank nametags. Enough for every student in the class. (Optional, but advised.)
- Copies of "Climate Change Mixer" questions for every student.

Time Required:

- One class period for the mixer. Time for follow-up discussion.

Suggested Procedure:

1. Explain to students that they are going to do an activity about the impact of climate change around the world. Distribute one role to each student in the class. There are only 22 roles, so in most classes, more than one student will be assigned the same individual. That's not a problem. You might point out to students that all of the roles describe actual people. In some cases, the roles incorporate these individuals' own words.

2. Distribute and have students fill out their nametags, using the name of the individual they are assigned. Tell students that in this activity you would like each of them to attempt to become these people from around the world. Ask students to read their roles several times and to memorize as much of the information as possible. Encourage them to underline key points. I ask students to list the three or four things they think are most important about their characters.

3. Distribute a copy of "Climate Change Mixer" to every student. Explain their assignment: Students will circulate through the classroom, meeting other individuals who also have some connection to global warming. They should use the questions on the sheet as a guide to talk with others about climate change and to complete the questions as fully as possible. Emphasize to students that they must use a different individual to answer each of the eight questions. (This is not *The Twilight Zone,* so students who have been assigned the same person may not meet themselves.) Tell them it's not a race; the aim is for students to spend time hearing each other's stories, not just hurriedly writing down answers to the different questions. Any role play risks stereotyping, so tell students not to adopt accents in an effort to represent an individual from another country. Encourage students to speak as if they are their assigned characters. Emphasize the use of the "I" voice, as sometimes students will begin by saying something like "My character lives in Bangladesh." It's important to the success of the activity that they attempt to *become* their characters—for example, to say, "I live in Bangladesh." Note that it's best to encourage students to meet one on one, as they circulate throughout the classroom. Sometimes students will cluster in groups, but this tends to allow some students to be passive and simply listen to others' conversations, rather than engaging in their own. Encouraging students to discuss the questions in pairs helps to address this potential problem. Finally, the last two questions ask students to begin to think about possible solutions. Tell students that answering both of these questions means they don't have to limit themselves to the information included in their role descriptions; they should try to propose ideas that are consistent with their characters' circumstances and concerns. For example, in one class, students playing two different individuals harmed by climate change decided they would make a film about the negative impact of rising temperatures throughout the world. This solution was not included in either role, but it was a creative response.

4. Ask students to stand up and begin to circulate throughout the class to meet one another and to fill out responses on the "Climate Change Mixer" questions student handout.

5. There is no set length of time for the mixer. I generally play a character myself so I can get a feel for how it's going and how much time students need. Allow at least a half hour for students to circulate.

6. After the students meet the other individuals, ask them to write briefly on some of what they learned from meeting people from around the world. Questions that I've used:

- Whom did you meet, or what situations did you hear about, that surprised you? Did you have any "aha's" while talking with people?
- Did anyone make you angry? Who?
- What themes seemed to come up in your conversations?
- Whom did you meet or which situations did you hear about that gave you hope?

7. Discuss these with students. See my article, "Teaching the Climate Crisis," on p. 79, for a description of how this played out with one group of students Tim Swinehart and I worked with.

Handout

Climate Change Mixer

1. Find someone who is hurt by climate change. Who is the person? How has the person been hurt or how might this individual be hurt in the future?

2. Find someone who might benefit from climate change, or who contributes substantially to climate change. Who is the person? How might the person benefit or in what way does this person contribute?

3. Find someone who has been forced to move because of climate change, or may have to move. Who is the person? Why might this person have to leave and where will they go?

4. Find someone who is affected by climate change in a way that is similar to how you're affected. Who is the person? How are your situations similar?

5. Find someone whose story involves a connection between water and climate change. Who is the person? What's the connection?

6. Find someone who will have to make life changes because of climate change. Who is the person? Why does this person have to make a life change? What might they do?

7. Find someone who has an idea about what should be done to deal with global warming—or someone who is taking action in some way. Who is the person? What is the person's idea or action?

8. If possible, find someone here with whom you could take some joint action around climate change. Who is the person? What action might you take in common? Be imaginative. This needn't refer directly to anything described in your role.

Larry Gibson

Mountaintop removal activist, Kayford Mountain, West Virginia

They say that to move away from oil we need to rely more on "clean coal," mined here in the USA.

Clean coal. That's a lie. That so-called clean coal comes from mountains in Appalachia that have been destroyed by coal companies, like Massey Energy. They blast mountains apart to get at the coal and dump everything they don't want in the valleys and streams, poisoning everything around.

When they talk about clean coal, they sure don't mean how they got it. They want you to focus on the fact that burning coal today produces less sulfur dioxide than it used to. That's the stuff that causes smog and acid rain. But burning coal still releases about twice as much carbon dioxide as natural gas, and a third more than oil—for the same amount of energy. And carbon dioxide is a greenhouse gas, the gases that cause global warming.

So mining coal is bad for the people of Kentucky and West Virginia, but it's also bad for the planet.

I've been fighting mountaintop removal of coal for more than 25 years. I'm not going to sit around and watch my home and the planet be destroyed. The coal companies care about the money. For me, it's not about the money. It's about the land. My mother gave me birth. The land gives me life.

Roman Abramovich

Sibneft Oil Co., Russia

Recently, I've seen a lot of articles asking whether global warming will be "good for Russia." This is a dumb question. Like anything, it will be good for some people and bad for some people. But I am doing everything I can to make sure that I am one of the people who benefits from global warming.

It's simple: As temperatures rise every year, ice will melt and huge new areas will be open for oil and gas exploration in the Arctic. And as one of Russia's wealthiest men, and head of a large oil and gas company, this is the chance of a lifetime. Researchers tell us that one quarter of the Earth's untapped fossil fuels, including 375 billion barrels of oil, lie beneath the Arctic. In the industry, we're talking about this opportunity as the new "black gold rush." Already our competitors in Norway—Statoil—are working on project Snow White, which will generate an estimated $70 billion in liquefied natural gas over the next 30 years. I'm not going to sit back and let the Norwegians or anyone else beat me out of this new business opportunity.

I'm sure that global warming is bad for a lot of people, but I'll leave that to the politicians and scientists. I'm a good businessman—a good *oil* businessman—so it's time to get to work.

Wangari Maathai

Green Belt Movement, Kenya

Africa is the continent that will be hit hardest by global warming. Unpredictable rains and floods, prolonged drought, crop failures, and fertile lands turned into deserts have already begun to change the face of Africa. The continent's poor and vulnerable will be hit the hardest. Already, some places in Africa are seeing temperatures rising twice as fast as world averages.

Wealthy countries will be affected, too. But for us, this is a matter of life and death. What makes this so outrageous is that our output of greenhouse gases is tiny when compared to the industrialized world's output. So the industrialized nations need to raise steady and reliable funds for the main victims of the climate crisis: the poor throughout the world.

For my part, I've been working in the Green Belt Movement for the last 30 years, since I was a young woman. We have mobilized millions of individual citizens in every country to plant trees, prevent soil loss, harvest rainwater, and practice less destructive forms of agriculture. We must protect the trees from the logging that is turning our continent into a desert. Our goal is to plant a billion trees. We will do our part to save the planet, but it is the rich countries that are most responsible.

Enele Sopoaga

Prime Minister, Tuvalu

Most people have never heard of my little island that is 400 miles from Fiji in the South Pacific. Tuvalu has 10,000 people in a place that averages just six feet above sea level. My people live on fish and fruit; everyone knows their neighbors and people don't even lock their doors.

Rising sea levels, caused by global warming, threaten the very existence of my land and people. Beginning in 2000, at high tide the water began covering places on the island that had never before been covered in the memory of even the oldest residents. In August 2002, the entire island flooded and the increased salinity [salt] has forced families to grow their root crops in metal buckets instead of in the ground. Many people believe that if current trends continue, there will be no more Tuvalu in less than 20 years.

The former prime minister of Australia said that if Tuvalu disappears, people should be relocated elsewhere. What incredible selfishness. How can anyone say that people in Tuvalu should suffer so that people in the so-called developed world can continue to fill our atmosphere with carbon dioxide by driving their big cars and buying stuff made halfway around the world? This is sick. That is why I have been speaking out.

Chris Loken

Apple grower, Hudson Valley, New York

Everybody is saying awful things about global warming, and I know that it's bad for a lot of people. But recently Fox News did a report on climate change "winners" and they came to talk to me. As they said in their report, "There are some upsides to global warming."

Frankly, I saw this coming. I knew that things were going to get warmer and you know what they say about a crisis: It's also an opportunity.

I live in a beautiful place. Rolling hills. Good for apple trees. But I decided to diversify. Right next to the apples, I planted peach, apricot, and plum trees. Years ago. As I say, I saw this coming. These trees wouldn't have survived the winters of the old pre-global warming days. But our winters are getting milder, and I'm betting my trees will do just fine. As I told the Fox News people: "This farm here has been set up for the future." It's not easy running a farm these days, and if the weather decides to cooperate a little bit, who am I to argue? I'm sorry for those folks who are hurt by all this, but I've got to think of my family.

Mustafa Abdul Hamid

From Azaz, Syria — now living in Kara Tepe Refugee Camp, Lesbos, Greece

My life in Syria used to be good. It all changed beginning with the winter of 2006-07. That was when the drought began—a drought that continued through 2010. It was the worst drought in Syria's history. Before the drought, my family and I farmed three hectares (almost seven and a half acres.) Beautiful, rich top soil. We grew wheat, fava beans, tomatoes, and potatoes. Before the drought we harvested almost a ton of wheat per hectare. But then there was no more rain. All I needed was water, and I didn't have water. So things got very bad. The government wouldn't allow us to drill for water. You'd go to prison. The drought lasted for years, and no one said anything against the government. Then, in 2011, we'd had enough. We decided to make a revolution. It was water and land that began this revolution. But the government started killing us. The violence was terrible. I could no longer make a living for my family. There was no work. So I decided to flee Syria. Now I live in the Kara Tepe refugee camp, the main camp for Syrians on the Greek island of Lesbos, near Turkey.

Some people say that we are refugees from the war. Some people say that we are climate refugees, because climate change is creating drought everywhere. But for me, the war and the drought, they are the same thing. Climate change means war.

Stephanie Tunmore

Greenpeace climate campaigner

I joined the environmental organization Greenpeace because I felt like I had to do something to make the world a better place. To me, it seems that climate change is the most dangerous problem facing humanity and the environment. The consequences of global warming will be catastrophic, and we have to do something.

I've been working to save the Arctic. People think of the Arctic as just one big empty block of ice and snow. Either that, or where Santa Claus and the elves live. But it's an unbelievable place. There are species of birds and fish that are found only there and a few other places. Polar bears, musk oxen, and caribou reside there; and in the summer, snowy owls, ducks, and swans migrate there to nest. But already Alaska's North Slope has been taken over by 28 oil production plants, almost 5,000 wells, and 1,800 miles of pipes.

But the oil companies see global warming and the melting ice as an opportunity to drill for even more oil and gas. Haven't we learned anything? Why are we looking for more fossil fuels? The good thing is that more and more people are determined to stop oil development. We've taken direct action and have confronted the oil drillers in places like the Beaufort Sea, where we towed a fiberglass dome with two Greenpeace activists inside into a BP Northstar oil-drilling construction area. Two other activists unfurled a banner: **"Stop BP's Northstar, Save the Climate."** Direct action. That's what it will take to stop these oil-drilling criminals.

Rafael Hernandez

Immigrant rights activist, The Desert Angels, U.S.-Mexico border

In 1986, I crossed the border from Mexico to the United States, looking for a better life for my family. Now I am committed to helping migrants in need. My group, Los Angeles del Desierto—The Desert Angels—patrols both sides of the Mexican-California border near San Diego. We look for lost migrants and leave water, clothing, and food at key spots in desert locations to help people on their journey.

Recently, we rescued María Guadalupe Beltrán, a 29-year-old mother of four who had been burned severely in the huge Harris Fire on the border. Her father had died in Mexico and she had returned home to attend his funeral. She was caught in the fire coming back into the United States. But after suffering terribly, Beltrán died of her injuries. Afterward, I spoke to her husband, Rafael, who sat by her hospital bed for two weeks. He told me: "I asked the Virgin: 'Tell me whatever you want, please just don't take her.' But she did. At 11 in the morning my wife went away. She died at 11." Six migrants died in the fire and eight were injured.

The border patrol has pushed migrants to cross in unsafe desert areas. And global warming is making these areas even more unsafe, more deadly. Climate experts say that these wildfires, just like the awful ones in Greece, Australia, and Colorado, are going to happen more and more as the climate shifts. So María and other wildfire victims are also victims of global warming.

Matthew Gilbert

Member of Gwich'in Tribe, Northern Alaska/Northwestern Canada

I am a member of the Gwich'in, the northernmost Indian nation on the American continent. There are about 8,000 Gwich'in. Because of global warming, we are threatened as a people.

We survive mostly from hunting caribou. Less snowfall is making sled and snowmobile transportation more difficult. Creeks are freezing later, and the ice is too thin to carry heavy loads. Lakes are drying up.

The worst threat is to the caribou. In 10 years, their number dropped from 178,000 to 129,000. Calves drown when they try to cross rivers that are usually frozen. My grandfather remembers vast numbers of caribou moving in waves near their village during spring and summer. No more. Our environment is in chaos. The hunters find it harder and harder to find the caribou that feed our people.

We must reduce greenhouse gases. My people are dying.

Rinchen Wangchuk

Snow Leopard Conservancy, Ladakh, India

When I was a boy, after school ended for the summer, I remember slipping down the glacier that stretched far down the mountains near my village in the Nubra Valley—in Ladakh, the far northern part of India. Today, that glacier is almost gone. And I am watching the glaciers of the Karakoram Mountains disappear a little more every year. One study found that each year, the glaciers lost between 49 and 66 feet, and another found that since the 1960s, more than 20 percent of the glaciers have disappeared. And as global warming increases, the glaciers will begin to melt faster and faster.

Glaciers are ice that has built up over thousands of years. Because it rains only two inches a year in Ladakh, we depend on the glaciers for 90 percent of our water. Farmers depend on this water to irrigate fields, and everyone depends on it for drinking. Ladakhis in the villages have worked out a cooperative system to share the water, but what will happen if the glaciers disappear? How will we survive?

In the rural areas of Ladakh, we have almost no cars. We pollute very little and release almost no greenhouse gases. It is unfair that the rich countries that produce so much carbon dioxide should be destroying the glaciers we depend on.

Moi Enomenga

Huaorani Indian, Eastern Ecuador

For years, the oil companies have invaded my people's lands and the lands of neighboring peoples—the Shuar, the Cofan, the Sequoya—in the rainforests of eastern Ecuador. First was Texaco. They left thousands of open pits that poisoned our rivers. Oil companies have spilled millions of gallons of crude oil and they continue to dump toxic chemicals into our rivers and streams. And oil development has also led to deforestation. When the oil companies build the roads, other "settlers" move in and chop down our forests and scare away our game.

With oil comes destruction. And now we learn that not only is oil development destroying our rainforest, it is destroying the world, through carbon dioxide pollution that leads to global warming. Oil kills the Huaorani through pollution and kills everyone through global warming. We say, "Leave the oil in the ground." Why do rich countries come here? People from the richest and most populated countries come to the poorest to take our resources, to live their life better, and leave us even poorer. But we are richer than they because we have the resources and the forest, and our calm life is better than their life in the city. We must all be concerned because this is the heart of the world and here we can breathe. So we, as Huaorani, ask those city people: Why do you want oil? We don't want oil.

Anisur Rahman

Mayor of Antarpara, Bangladesh

I am the mayor of Antarpara, a village in Bangladesh. Antarpara is on the Brahmaputra River that flows from the Himalaya Mountains in India. We are in the lowlands, and our village floods every year. We are used to it, and, in fact, the flooding is good because it leaves our land more fertile.

But now the floods are much worse. Now the floods are huge and each year they destroy our homes and carry off the land underneath them. My village used to have 239 families. Now we are 38 families. But where can we go when our homes are gone? Our country has 150 million people—the most densely populated in the world. I have an 18-month-old child. By the time she is grown, this village won't be here.

Where are we supposed to go? Do we all get tickets to America?

Steve Tritch

President and CEO, Westinghouse Electric

Before I became the head of Westinghouse I was senior vice president for Nuclear Fuel, providing nuclear fuel products and services to nuclear power plants throughout the world. Before that, I led the merging of the former ABB nuclear businesses into Westinghouse Electric, and was senior vice president of nuclear services. And before that, in 1991, I became manager of the Nuclear Safety Department, and later was appointed general manager of Westinghouse's Engineering Technology. Today, I belong to the American Nuclear Society and serve on the Nuclear Energy Institute's board of directors. I guess you could call me Mr. Nuke.

You might say that I'm a man on the hot seat these days. Not only are we running out of easy-to-find oil, but oil is also blamed for global warming. Coal is an abundant source of power, but it produces even larger amounts of greenhouse gases than oil—or natural gas. People are looking to my company, Westinghouse, for solutions. The solution is obvious: nuclear power. As I tell my employees, "What's good for the planet is good for Westinghouse."

Sure, the accident at the Fukushima nuclear plants in Japan was serious, and people were hurt. But the whole industry has learned from this accident, and even Japan still knows that nuclear power is the best way to go. The real threat is global warming. Global warming could destroy much of life on Earth. But nuclear power produces no greenhouse gases. They say nuclear power has dangers. Well, last year 5,200 Chinese coal miners died in accidents—and that's a lot more than have ever been hurt in a nuclear power accident. I see hope for the planet and Westinghouse is here to play our part.

Nancy Tanaka

Orchard Owner, Hood River Valley, Oregon

Our family has owned and operated fruit orchards in Oregon's Hood River Valley since my husband Ken's grandparents bought land here in 1917. Our family's only "time off" was when the U.S. government locked our family in internment camps during World War II. But that's another story.

Every generation of our family has farmed this land. And then we woke up to the front-page article in our local newspaper. It was a shocker. In fact, it scared us half to death. A study by Oregon State University found that 75 percent of the water during the summer months in the Upper Middle Fork of the Hood River comes from melting glaciers on Mt. Hood. And because of global warming, the glaciers are disappearing. That's our river. Well, we don't own it, but it's the river that irrigates our pears and cherries. Our family has grown fruit on this land since before we were born, and now they tell us that our irrigation water may be disappearing?

To tell you the truth, I never knew so much of the river's water in the summer came from glaciers. You see, glaciers on Mt. Hood are kind of small compared with glaciers on other mountains. Scientists say the problem is that glaciers have been shrinking because of global warming. I always thought global warming might affect the Arctic and the polar bears, but not the Upper Middle Fork of the Hood River.

Trisha Kehaulani Watson

Environmental lawyer, Hawaii

I was born and raised in the valley of Manoa, in the district of Kona (known today as Honolulu), on the island of Oahu. I am native Hawaiian. I am a lawyer specializing in environmental law—but much of my knowledge comes from talking with my family and *kupuna,* our elders.

Over the years, I have seen the beaches I played on my entire life steadily erode. In many places, the sand is disappearing.

My valley has always been very *waiwai* (wealthy, rainy, with much fresh running water), yet the waters have changed. We have far more unstable weather. When I was a little girl my grandfather used to take me down to the streams to watch the water rise when the heavy rains came. But things are much different today. The heavy rains are devastating. A few years ago we had a terrible flood wash through the valley. Since then, my street has been shut down numerous times due to dangerous flooding.

The seasons have also changed. It gets much colder than it used to, and also much hotter. The plants have changed because of it. Fruits come at unusual times of the year. Flowers bloom at different times of the year. Health problems also result from these weather changes.

The Earth is not well.

James Hansen

Former director, Goddard Institute for Space Studies, National Aeronautics and Space Administration (NASA), New York, City

I am a scientist, but I am also a grandfather. So that makes me especially interested in the future.

Recently, I was arrested at the White House in Washington, D.C., protesting the construction of the 1,700-mile Keystone XL Pipeline to send oil from the Tar Sands of Alberta, Canada, to Texas. Why would a scientist and a grandfather commit civil disobedience and get arrested? That's simple. If this pipeline is built and they continue to take this especially dirty and polluting oil from the Canadian Tar Sands, it makes it very unlikely that we will be able to stabilize the climate and avoid the disastrous effects that we are already beginning to see. As I've said, this pipeline is the fuse to the biggest carbon bomb on the planet.

Many years ago, I was one of the first scientists to warn that as we burn more fossil fuels—coal, oil, natural gas—the carbon dioxide created will heat the Earth to dangerous levels, with terrible, terrible consequences. I thought people would respond to scientists' rational arguments that we needed to end our addiction to fossil fuels. Now I know we need to take more drastic action.

So I volunteered to be arrested with 1,200 other people to draw attention to the importance of stopping this deadly pipeline from being built. I am more than 70 years old, but if need be, I will keep getting arrested.

Robert Lovelace

Ardoch Algonquin Indian leader, Ontario, Canada

A few years ago, I was sentenced to six months in jail and ordered to pay a $15,000 fine. What was my "crime"? Trespassing on my own land—trying to block a uranium company, Frontenac Ventures, from prospecting on and polluting Algonquin Indian land. It began when we noticed people cutting down trees on land we had never ceded to the Canadian government. Someone had given Frontenac a prospecting license and they had gotten a court to issue an injunction against "trespassing." But this is our land, and Algonquin Indians and our non-Indian supporters organized a 101-day blockade to physically stop Frontenac from destroying the land. I was arrested and became a political prisoner.

Because of global warming, the nuclear power industry is claiming it is the "clean" alternative, because nuclear power does not generate greenhouse gases like coal or oil. The price of uranium shot from $43 a pound in 2006 to $75 a pound a couple of years after. It came down as a result of the 2011 nuclear disaster in Japan, but it will go back up. Canada is already the world's leading exporter of uranium, and many in our government want to increase exports and turn Canada into an "energy superpower."

There is nothing good about uranium mining. Uranium mining has no record other than environmental destruction and negative health issues. Mining companies clearcut the land and destroy the Earth to get at the uranium. Uranium can't be stored safely and other uranium mines around Canada have left land polluted with heavy metals like arsenic. And nuclear power itself is not clean. Nuclear waste stays radioactive for thousands of years and no one has found a safe way to store nuclear poisons that long.

Richard H. Anderson

CEO, Delta Airlines, Atlanta

I am CEO of Delta Airlines, and live in Atlanta. I'm a businessman and a lawyer, and have been in the airline business for more than 20 years. My job is to oversee Delta's long-term goals. Ultimately, I need to keep the company profitable for our investors and a secure and fulfilling place to work for our 80,000 employees.

I've been reading that air travel is bad for global warming. People say our jets produce a huge amount of carbon dioxide and other greenhouse gases that increase global warming. An article I read recently said, "Flying is one of the most destructive things we can do." This researcher concluded that "the only ethical option . . . is greatly to reduce the number of flights we take."

But ethics are complicated: Don't I have an ethical responsibility to my employees and stockholders—and to the 160 million customers who fly Delta every year, on more than 15,000 flights each day? And that means expanding air travel, advertising low fares, and trying to get people to take vacations to faraway places like Japan and China, to keep Delta profitable. Sure, we will try to pollute less, but we'll leave global warming to the politicians and scientists to figure out. I'm a businessman.

Yolanda del Carmen Marín

Coffee plantation worker, Sonsonate, El Salvador

These are hard times for people like me who work on coffee farms. I've worked here in Sonsonate since I was a kid. I have done pretty much every job there is to do on this farm. There are a lot of problems now — pests, low prices for coffee beans — but the big one is climate change. It used to be that the rainy season would start in May. But with climate change, who knows? The rains sometime come early, and the coffee plants flower, but then the rain will stop and so things dry up. Sometimes the rains come late or don't come at all. That leads to a terrible harvest. Forty years ago, this farm produced 4,000 tons of coffee. This year? It will produce about 300 tons. In the last 10 years in El Salvador, 80,000 people lost their jobs in the coffee industry.

I guess I'm one of the lucky ones, because I still have a job, although it pays only about $30 a week. My daughter couldn't find any work at all, other than trying to sell food on street corners. So in order to survive, she and her family joined one of the migrant caravans traveling to the United States. What else was she supposed to do? I'm old now, so cannot make the journey north, but if I was younger, I probably would. My friend, Reyna de Jesús López, who works on the coffee farm with me, paid to send her 12-year-old son to the United States. She says that sometimes he calls her to say that he wants to come home, but she tells him, "What are you going to do here? There are no opportunities for young people." Things here have never been easy, but climate change made them worse.

The government in the United States tells Salvadoran migrants to go home. But one of the main reasons migrants can't go home is because of climate change — caused mostly by the rich countries, like the United States, with all their greenhouse gases.

Paulette Richards

Miami, Florida

I live in Liberty City, a mostly low-income and African American neighborhood in Miami, Florida. I love this neighborhood. Just walk down the street and you can smell that wonderful Haitian fried pork and plantains coming out of people's houses. I bought my home back in 2001 for $90,000. Recently, I've struggled to make mortgage payments because without health insurance my cancer treatments left me with a lot of debt. Somehow, the real estate people must have heard that I was short of money, because I have been getting phone calls everyday from people wanting to buy my home.

It's the rising seas, caused by climate change. That's why the rich white folks want my house. For years, those people wanted to live down near the water. They still do, but now they are starting to see that with climate change, it's risky to live near the ocean. The city of Miami says that by 2060, the sea level will rise anywhere from 14 to 34 inches. For years and years, because of segregation and racism, banks wouldn't lend to people of color, and we were only allowed to live in the less desirable high ground — the coral ridge, stretching from north Miami-Dade County to the upper Florida Keys. That's why suddenly, all the real estate people and developers are trying to buy our places and sell them for lots more money. Community activists in my neighborhood call it "climate gentrification." And as housing prices go up, so do the taxes. People who rent homes or businesses are seeing their rents skyrocket. What are they supposed to do? But I didn't buy a house for investment. I bought this to live in, to die in. It's my legacy, my home, my worth. Without that what else do I have? The good news is that this community is organizing and fighting back — people are talking about rent control and freezing taxes, and forcing developers to build affordable housing, if they want to do business here. This is my community; I'm not going anywhere.

Elizabeth Easton

Beaumont, Texas/Oakland, California

I guess you could say that I am a climate change refugee. I now live in a big old lot behind an Office Depot with about a hundred other people in Oakland, California. We live in cars, in tents, in old campers, in tiny houses people have put together. But I used to live in Beaumont, Texas, about 90 miles from Houston.

Here's the story. In August of 2017, Hurricane Harvey made landfall on the coast of Texas. Harvey had winds of 150 miles per hour when it hit. In Beaumont, where I lived, we got more than 50 inches of rain! I had never seen anything like it. The worst thing is that the little house where I was renting lost water service — the whole city water system shut down. No drinking water, no way to flush the toilet. It was terrible. Beaumont opened a shelter, but conditions were so unsanitary in the shelters that the city had to get us out of there.

I know that there have always been hurricanes, but I heard a scientist on the news who said that climate change made storms like Hurricane Harvey three times as likely, and Hurricane Harvey had 38 percent more rain than if there wasn't any global warming.

I didn't have much, but I lost everything in that storm. I liked Beaumont, but I had to get out of there, so I took a bus to Oakland, California, where I have family. But it is way too expensive to live here. There is no place I can afford. I lost almost everything in the hurricane. Now, my home is here, behind this big Office Depot. I paid someone to let me stay here, but it's not safe — especially at night. Here, I feel forgotten, tossed aside. People talk about the "homeless crisis." For me, it all started with a hurricane, fueled by climate change.

Tom Conway

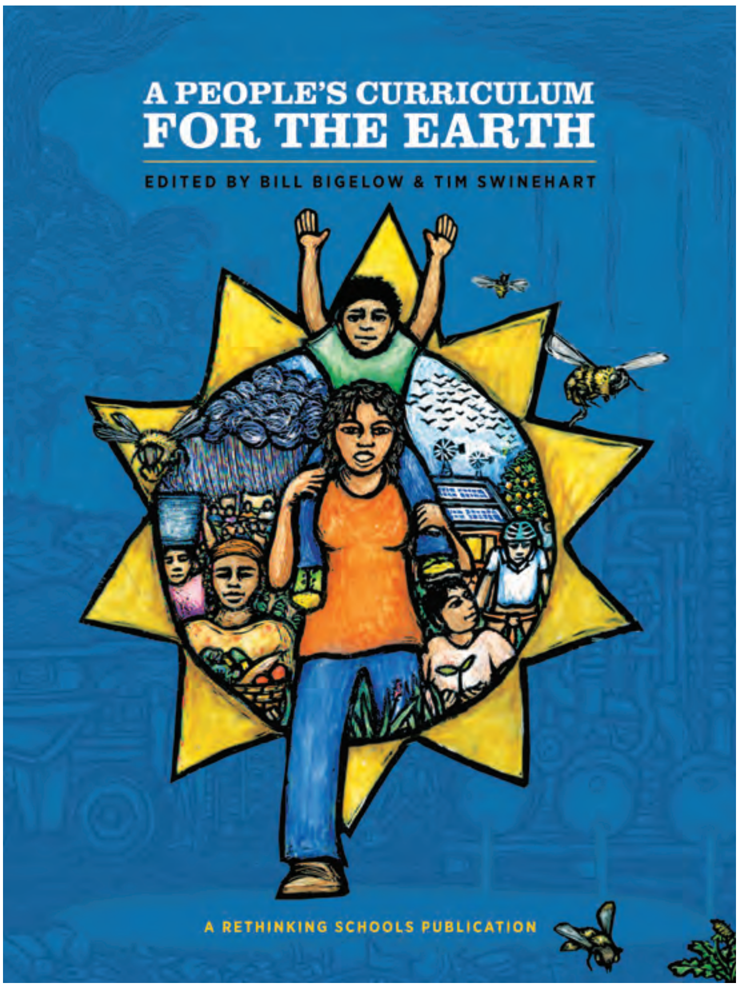
Miami, Florida

I know that climate change is going to hurt people. But here's the thing: With any change comes opportunity, and if you're smart, you'll take advantage of opportunities that come your way. I am a developer in Miami. Basically, I buy places as inexpensively as I can and then I fix them up either to rent or to re-sell.

As I say on my website, I have a "sharp financial foundation" and "an analytical aptitude." I began to notice that property values in certain inland neighborhoods were going up faster than property values on the beach. Sure, beachfront property is still expensive and desirable, but the scientists say that by 2060 the sea level here will rise by 14 to 34 inches, so people are becoming more interested in the parts of Miami on higher ground. For years, areas like Liberty City, Little Haiti, and Overtown were where the poor people lived. In these higher ground neighborhoods, property values are increasing three times the average in the rest of Miami-Dade County. So I'm going in to these neighborhoods and buying up businesses and homes as cheaply as I can. For example, I just bought up a couple of shopping centers in the Little Haiti neighborhood. The tenants — a travel agency, a tuxedo shop, a clothing store, some restaurants, a tax preparation place, and other businesses — had been there for years, some as long as 30 years, and weren't paying much rent. As wealthier people move into the neighborhood, they want other kinds of businesses — businesses that can pay a lot more rent. So I evicted all the tenants in order to remodel my new shopping centers. I followed the law and gave people 15 days to move out.

People in the community protested — they are still protesting. "Climate gentrification!" they called it. They said I am a racist, because the tenants I removed were Black and I'm white. Look, I have nothing against the former tenants of my buildings. This is just business. I can make more profit renting to people who have more money, people who feel that with climate change, the neighborhoods on higher ground are a safer risk.

This lesson comes from the Rethinking Schools book, ***A People's Curriculum for the Earth: Teaching Climate Change and the Environmental Crisis***. The book includes more than 80 additional environmental justice lessons and student-friendly readings, for elementary through college. Go to www.rethinkingschools.org/earth to see the table of contents and to read the book's introduction.



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author of *The Shock Doctrine* and *This Changes Everything: Capitalism vs. the Climate*

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Use the online role assignment template for remote instruction.

Copy the Google Doc "Role Assignments for Remote Instruction Template," enter your students' names in the left column, and the class will be able to access their roles online by clicking on the linked names to the right.

TEACHING PEOPLE'S HISTORY

ZINN EDUCATION PROJECT

A collaboration between Rethinking Schools and Teaching for Change.

Remote Instruction Role Assignments

Stories from the Climate Crisis: A Mixer

By Bill Bigelow

Lesson link: https://www.zinnedproject.org/materials/climate-crisis-mixer

Teacher Instructions: Assign your students roles and groups by entering each of their names into the left-hand column. The template here comes with spaces for 38 students, or 19 roles assigned twice. Add or remove spaces to fit your classroom size. Delete these instructions, delete "Template," and share this sheet with your students.

Students/Participants' Names	Link to Role Assignment
1. Student name	Elizabeth Easton
2. Student name	Stephanie Tunmore
3. Student name	Moi Enomenga
4. Student name	Matthew Gilbert
5. Student name	Chris Loken
6. Student name	Rafael Hernandez
7. Student name	Trisha Kehaulani Watson
8. Student name	Wangari Maathai
9. Student name	Paulette Richards
10. Student name	Robert Lovelace
11. Student name	Anisur Rahman
12. Student name	Elizabeth Yeampierre
13. Student name	Larry Gibson
14. Student name	Richard H. Anderson
15. Student name	Mustafa Abdul Hamid
16. Student name	Nancy Tanaka
17. Student name	Roman Abramovich
18. Student name	Rinchen Wangchuk
19. Student name	Tom Conway
20. Student name	Enele Sopoaga
21. Student name	James Hansen
22. Student name	Steve Tritch
23. Student name	Yolanda del Carmen Marín

Role assignments for the lesson Stories from the Climate Crisis: A Mixer

Click here to make your own copy of the Role Assignments Template.