

# OUR CLIMATE OUR FUTURE

## STUDENT WORKSHEET

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

### CHAPTER 2: LIVING LARGE

1. How many Earths will we need to have enough resources if the whole world lived like Americans?
2. Living large means we use a lot of energy. What are three ways people use energy in their daily lives?

### CHAPTER 3: FOSSIL FUELS AND CO<sub>2</sub>

3. Describe the environments 300 million years ago that eventually formed coal, oil and natural gas.
4. What percent of the energy used today comes from fossil fuels?
5. What is produced and released into the atmosphere when people burn fossil fuels?

### CHAPTER 4: CO<sub>2</sub> AND CLIMATE CHANGE

6. What percentage of the atmosphere is made up of greenhouse gases like carbon dioxide, water vapor, and methane?
7. Over the last 800,000 years before humans existed, CO<sub>2</sub> levels in the atmosphere have stayed below \_\_\_\_\_ PPM. Today, CO<sub>2</sub> levels are over \_\_\_\_\_ PPM.
8. From the map, what is one way that climate change impacts where you live?
9. Why do the hosts say that climate change is unfair? Do you agree?

# OUR CLIMATE OUR FUTURE

## STUDENT WORKSHEET

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

### CHAPTER 6: IS IT REAL?

10. Climate has changed naturally throughout Earth's history, but how is climate change today different?
11. What percent of climate scientists agree that humans are causing climate change?

### CHAPTER 8: THE SOLUTIONS

12. What are two different ways to turn a turbine to generate electricity without using fossil fuels?
13. Why are wind and solar power called renewable energy?
14. What are two ways that you could use less energy?
15. Switching over to renewable energy can create more well-paying jobs than staying with fossil fuels. Do you see a green career that you'd be interested in, or is there one you're interested in that you didn't see shown in the video?

### CHAPTER 9: THE MOVEMENT

16. What's the name of the global climate agreement that was signed in 2015?
17. Which story of young people taking action or example of green technology from this chapter stuck out to you the most?

### CHAPTER 10: DO ONE THING

18. Individual actions add up. Name two things you can do to fight climate change in your daily life.

# OUR CLIMATE OUR FUTURE

## STUDENT WORKSHEET: ANSWER KEY

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

### CHAPTER 2: LIVING LARGE

1. How many Earths will we need to have enough resources if the whole world lived like Americans?

**5 planet Earths**

2. Living large means we use a lot of energy. What are three ways people use energy in their daily lives?

**Growing food, making our stuff, moving ourselves around, and powering our lives.**

### CHAPTER 3: FOSSIL FUELS AND CO<sub>2</sub>

3. Describe the environments 300 million years ago that eventually formed coal, oil and natural gas.

**The environment on land that formed coal was warm and swampy with large trees and plants. When these died, they were buried underground and “cooked” by heat and pressure over millions of years to produce coal. Oil and gas were produced by a similar process in the ocean from decomposing plankton that fell to the seafloor, was buried deep in the Earth over time and cooked into oil and, with further heat and pressure, natural gas.**

4. What percent of the energy used today comes from fossil fuels?

**80%**

5. What is produced and released into the atmosphere when people burn fossil fuels?

**Carbon dioxide (CO<sub>2</sub>)**

### CHAPTER 4: CO<sub>2</sub> AND CLIMATE CHANGE

6. What percentage of the atmosphere is made up of greenhouse gases like carbon dioxide, water vapor, and methane?

**Less than 1%**

7. Over the last 800,000 years before humans existed, CO<sub>2</sub> levels in the atmosphere have stayed below **300** PPM. Today, CO<sub>2</sub> levels are over **400** PPM.

8. From the map, what is one way that climate change impacts where you live?

**Impacts include rising sea-levels, heat waves, stronger hurricanes, droughts, floods, wildfires, West Nile virus, Lyme disease, and pollen.**

9. Why do the hosts say that climate change is unfair? Do you agree?

**Many of the poorest people on Earth are impacted the worst by climate change. Those who live closest to sources of pollution have the least resources to protect themselves from extreme storms and droughts. These are typically people who produce less CO<sub>2</sub> than others. It is also unfair to young people because the younger someone is, the less they've contributed to climate change, yet they will be facing the problem for much longer.**

Have student questions that aren't answered here? Email us: [hello@acespace.org](mailto:hello@acespace.org). Text TEACH to 64336 for more resources.

# OUR CLIMATE OUR FUTURE

## STUDENT WORKSHEET: ANSWER KEY

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

### CHAPTER 6: IS IT REAL?

10. Climate has changed naturally throughout Earth's history, but how is climate change today different?

Climate does change naturally due to factors such as changes in Earth's orbit, but climate change typically happens slowly, over thousands of years. Now, CO2 levels are spiking over just a few decades.

11. What percent of climate scientists agree that humans are causing climate change?

97%

### CHAPTER 8: THE SOLUTIONS

12. What are two different ways to turn a turbine to generate electricity without using fossil fuels?

Wind and Water

13. Why are wind and solar power called renewable energy?

Renewable energy sources never run out, whereas fossil fuels will eventually run out.

14. What are two ways that you could use less energy?

Use more efficient light bulbs like LED light bulbs or use insulation that keeps your indoor temperatures more comfortable so you use less air conditioning or heating.

15. Switching over to renewable energy can create more well-paying jobs than staying with fossil fuels. Do you see a green career that you'd be interested in, or is there one you're interested in that you didn't see shown in the video?

Options listed: Green Architect, Environmental Scientist, Wind Turbine Technician, Urban Farmer, Solar Engineer, Campus Sustainability Coordinator.

### CHAPTER 9: THE MOVEMENT

16. What's the name of the global climate agreement that was signed in 2015?

The Paris Climate Accord

17. Which story of young people taking action or example of green technology from this chapter stuck out to you the most?

No one correct Answer!

### CHAPTER 10: DO ONE THING

18. Individual actions add up. Name two things you can do to fight climate change in your daily life.

No one correct Answer!

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# SHARE YOUR CLIMATE STORY WITH ACE

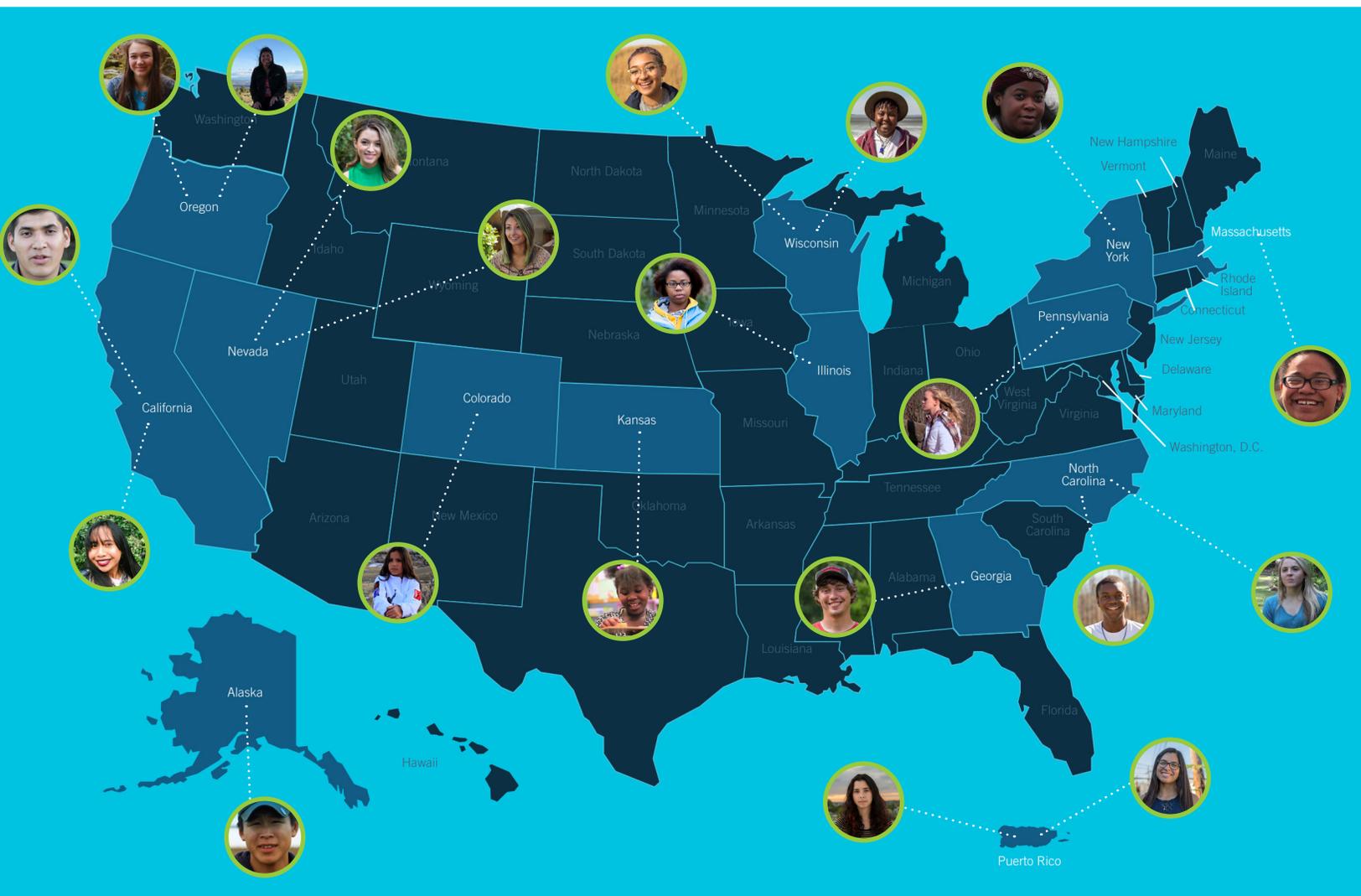
HELP US DOCUMENT CLIMATE IMPACTS AND YOUNG PEOPLE TAKING CLIMATE ACTION ACROSS AMERICA

## 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.



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