



Lesson Guide

Are Chinese and Americans the Key to Life on Planet Earth?

Vocabulary List (*list of words or phrases that are related to the topic for which the lesson guide is being created*)

1. **Climate Change/Crisis:** Long-term changes in global temperatures and weather patterns. These changes may be caused naturally or by human activity.
2. **Climate Activism:** Advocacy to have the issues of climate change recognized and addressed by government, business leaders, and the public.
3. **Global Warming:** An increase in the earth's atmospheric and oceanic temperatures widely predicted to occur due to an increase in the greenhouse effect resulting especially from pollution.
4. **Burning of Fossil Fuels:** Burning of oil, natural gas, and coal to generate energy for electricity, power, and industrial processes.
5. **Greenhouse Effect:** The process by which greenhouse gasses (e.g., carbon dioxide) act as a blanket around Earth to trap the Sun's heat, thereby keeping Earth warm enough to sustain life.
6. **“Code red for humanity”:** United Nations Secretary-General António Guterres referred to the Intergovernmental Panel on Climate Change (IPCC) report that shows climate change is widespread, rapid, and intensifying as alarm bells to take urgent action to prevent 1.5 degrees of warming.
7. **Pollution:** Contamination of the environment by harmful materials called pollutants (e.g., trash, pesticides). Pollution can damage water, air, and land.
8. **Deforestation:** The removal of large areas of the forest, oftentimes for agriculture and illegal logging.
9. **Sea Level Rise:** Average rise in the water level of the Earth's oceans due to global warming.
10. **The Paris Agreement:** A legally binding international agreement on climate action to reduce greenhouse gas emissions and to build resilience to adapt to climate change. This was adopted by 196 Parties at the United Nation (UN) Climate Change Conference (COP21) in Paris in 2015.
11. **Renewable Energy:** Energy derived from sources that the Earth can naturally replenish, such as crops and biomatter.
12. **Sustainable Energy:** Energy derived from sources that don't need to be replenished because they can never be depleted (eg., sunlight, wind, etc.).
13. **Zero-Emission Vehicle:** Electric vehicles that are designed to generate lower greenhouse gas emissions and no tailpipe pollution as compared to gas-powered vehicles.



14. **Plant-based Diet:** Consists mostly or entirely of plant foods including vegetables, fruits, grains, legumes, nuts, herbs, spices, and seeds and may exclude animal-based products.

Suggested Discussion Topics

1. Wei-Tai Kwok states, “Chinese and Americans are the key to life on Earth.” Do you agree or disagree with this statement? Why?
2. With increasing tensions between the U.S. and China, what are ways to enhance climate cooperation between the two biggest emitters of greenhouse gasses? What can the people in each country do to urge their governments to take urgent action to address climate change?
3. “Climate change” is a huge topic – how is climate change affecting your life now? How might it affect your life going forward? How do you think it will affect our future generations?
4. What are some human activities that are contributing to climate change? What are the consequences? In what ways may you be contributing to climate change and are there easy ways to adjust your habits? (Think about, e.g., a plant vs. animal-based protein diet, transportation, etc.)
5. Who are your trusted sources for data and information? Science and data collection is ongoing and can be read and put into the viewpoint of the presenter. Look at the most commonly cited data available, are there opposing viewpoints from other (credible) stakeholders?
6. How do factors such as capitalism, politics, activism, and citizenship play into the making of laws and legislations? Which initiatives do you feel are effectively addressing climate change? What can all of us do in our everyday life to combat climate change?
7. How does industrialization and the shift towards industrialization affect overall carbon emissions?
8. Renewable and sustainable energies have benefits and challenges – what are the benefits and challenges of solar, wind, hydro power, nuclear, and/or other alternative energies?
9. What is the significance of 1.5°C? What are some irreversible consequences shown in the video and why are they considered irreversible?
10. Of the clean energies such as wind, solar, hydro power, nuclear and any other, how soon do you feel the U.S. economy can run on the predominant clean energy sources in a sustainable way? Compare that to the timeline of your state – does it look feasible?
11. In the past, the ozone layer, acid rain, flooded shorelines and a sinking Manhattan were huge concerns. What measures were implemented to address these crises and how did they fare?



12. How do you think greenhouse gasses should be evaluated? By total emissions per country or per capita contribution? Why?

Suggested Activities

1. The [United Nations ActNow](#) campaign is for individual action on climate change and sustainability. Take a look at the [action guide](#) and start with these [ten impactful climate actions](#) to help tackle the climate crisis. For more tips, and to log your actions, download the [app](#).
2. Conduct a case study on [Costa Rica](#) (a country leading the use of sustainable energy and preservation of biodiversity) and have group discussions on what can be adapted to the U.S. Compare and contrast sustainability efforts between the two countries.
3. Create a presentation to explore the impact of [food on climate change](#). Using this [interactive graph](#), how do greenhouse gas emissions from meat, dairy, and other foods compare?
4. Create a guide on how to properly recycle and compost and the benefits. Start a class compost bin or ask students to [compost at home](#).
5. If you have access to high school students in another country, compare their climate change issues and how they are dealing with them on a personal and community level. Choose one or more of the [ten impactful climate actions](#) to commit to, together, over 2 weeks (or other timeframe).

Suggested Additional Filmography, Podcast, Videos

1. [Meet the Millennial Entrepreneurs Driving U.S.-China Green Business](#) (1:12:10), The China Project (formerly SupChina)
2. [Addressing Climate Through Food](#) (1:31:19), Joseph Poore, Cambridge Climate Lecture Series
3. [Eat For The Planet with Nil Zacharias](#) (1:05:00): This podcast features conversations with food industry leaders and sustainability experts and includes discussions on ways to transform our food system.
4. [How Global Warming Works in under 5 minutes](#): This site's information helps people understand global warming's scientific mechanism.
5. [NASA's Earth Minute](#): This one-minute white-board animation video series explains key concepts about Earth science, missions, and climate change.
6. [Mother Earth has a fever, and we are in her womb](#) (50:00): This podcast episode by Who Cares Wins with Lily Cole, who invites guests with different perspectives to explore critical issues – and their relationship to the environment – from technology and food to mental health and capitalism.