

America's Big Year of Climate Action

Description:

Three major federal bills were signed into law in 2021 and 2022, which together make up the largest investment in addressing climate change in US history. Students explore the differences and interactions of the three laws, investigate local impacts, and design their own climate-related bill.

Skills & Objectives

SWBAT

- Explain key differences between the climate-related provisions of the Inflation Reduction, the Infrastructure Investment and Jobs, and the CHIPS and Science Acts
- Understand the concepts of “carrots” and “sticks” in government action

Skills

- Reading and discussing public-facing government documents
- Systems thinking
- Critical thinking

Students Should Already Know That

- Basic understanding of the ability of governments to effect change in industry and individuals' lives through legislation.

Standards Alignment:

HS-ESS3-4 Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.

HS-ETS1-3 Evaluate a solution to a complex real-world problem based on prioritized criteria.

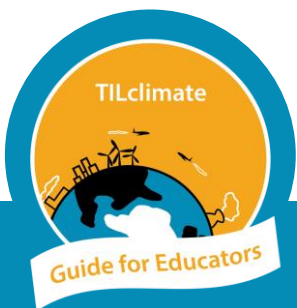
WHST.9-12.1 Write arguments focused on discipline-specific content.

ELA.SL.9-12.1 Initiate and participate effectively in a range of collaborative discussions

ELA.SL.9-12.2 Integrate multiple sources of information presented in diverse formats and media

Disciplinary Core Ideas:

ESS3.D Global Climate Change



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How To Use These Activities:



Pages with the circular “TILclimate Guide for Educators” logo and dark band across the top are intended for educators. Simpler pages without the dark band across the top are meant for students.

Each of the included activities is designed to be used as a standalone, in sequence, or integrated within other curriculum needs. A detailed table of contents, on the next page, explains what students will do in each activity.

A Note About Printing

All student pages are designed to be printable in grayscale.

The worksheets do not leave space for students to answer questions. Students may answer these questions in whatever form is the norm for your classroom – a notebook, online form, or something else. This allows you, the teacher, to define what you consider a complete answer.

Share with us! We would love to hear any podcasts or see any other projects you or your students create! Email us at tilclimate@mit.edu, tweet us @tilclimate, or tag us on Facebook @climateMIT.



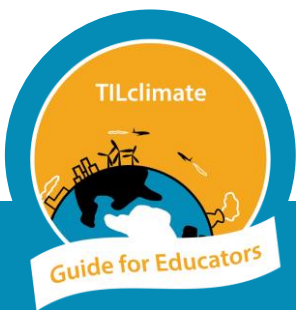
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Detailed Table of Contents

Page	Title	Description	Time (min)
	Podcast Episode	Students listen to TILclimate: America's Big Year of Climate Action, either as pre-class work at home or in the classroom. https://climate.mit.edu/podcasts/americas-big-year-climate-action	10-15
1-5	Expert Panel	Groups of students become "mini-experts" on each of the three laws discussed in the podcast episode. Then, they re-assort to draw a group mind map linking them.	30+
6-8	Think Locally, Make System-Wide Connections	Students read fact sheets for state-level impacts of the legislation, and then build systems-thinking maps to investigate connections.	30+
9-12	Design Your Own Climate Bill	Step-by-step guidance to develop and explain a simple bill aiming to affect one aspect of climate change.	30+



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Climate Legislation

This Educator Guide includes multiple investigations into three key pieces of climate-related legislation. Educators may pick and choose among the pieces of the Guide, as suits their class needs.

Parts of this Guide may align with the following topics:

- History/social science: Civics, legislation, government, economics.
- ELA/nonfiction: Speaking and listening on complex issues.

MIT Resources

We recommend the following as resources for your own better understanding of climate change or as depth for student investigations. Specific sections are listed below:

- Climate Science, Risk & Solutions, an interactive introduction to the basics of climate change. <https://climateprimer.mit.edu/>
 - Chapter 10 What can we do?
- MIT Climate Portal Explainers are one-page articles describing a variety of climate topics. New Explainers are posted monthly. <https://climate.mit.edu/explainers>
 - Greenhouse Gases
 - Carbon Pricing
 - Climate Targets
 - Investing and Climate Change
 - Climate Justice
 - Climate-Resilient Infrastructure
- MIT professors can answer your and your students' questions about climate change! Submit your questions or see other answers at <https://climate.mit.edu/ask-mit-climate>



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Wrap-Up Discussion Questions

- Which tools did legislators use to incentivize their chosen impacts through these laws?
- Which parts of these laws sound the most interesting to you?
- What have you heard about these laws in the news or at home?
- What are some other ways that governments can slow or adapt to climate change?

Climate Solutions

Climate solutions can be thought of as falling into four categories outlined below. Across all categories, solutions at the community, state or federal level are generally more impactful than individual actions. For example, policies that increase the nuclear, solar and wind mix in the electric grid are generally more effective at reducing climate pollution than asking homeowners to install solar panels. For more on talking about climate change in the classroom, see “How to Use This Guide”.

• Energy Shift

How do decision-makers make the switch from carbon-producing energy to carbon-neutral and carbon-negative energy?

• Energy Efficiency

What products and technologies exist to increase energy efficiency, especially in heating and cooling buildings?

• Adaptation

How can cities and towns adapt to the impacts of climate change?

• Talk About It

Talking about climate change with friends and family can feel overwhelming. What is one thing you have learned that you could share to start a conversation?

What solutions are the most exciting in your classes? We would love to hear from you or your students! Images, video, or audio of student projects or questions are always welcome. Email us at tilclimate@mit.edu, Tweet us @tilclimate, or tag us on Facebook @climateMIT.

