

Climate Change and Global Warming Unit

- ✓ Multi-format Activities: Labs, scavenger hunts, readings, projects, and quizzes on climate change and greenhouse gases.
- ✓ Student-Centered Learning: Hands-on tasks, research, diagrams, videos, and comprehension questions.
- ✓ Fully Editable, Digital & Printable



Bundle Includes

Climate Change and Global Warming Lesson 6th, 7th, 8th Grade



Case Study – Green Sea Turtles and Climate Change



Case Study – The Adélie Penguin and Climate Change



TWF

Climate Change Project 6th, 7th, 8th Grade



Climate Change Lab Station Activity



Case Study – Polar Bears and Climate Change



TWF

Speed Quizzing

What is climate?



The average of weather in a region over a long period of time.

True/False: Most air in the atmosphere is N₂ and O₂.

True



A fast-moving review activity where students quiz each other, swap cards, then move on to

Device-Based Scavenger Hunt Climate Change



Includes

- 5 Unique Locations
- Online form submission
- Answer Key

Works on all smartphones, tablets, Chromebooks and laptops

- 100% Digital
- Simulations
- Quizzes

Reading Comprehension Passage & Questions

Climate Change

6th, 7th, and 8th Grade Science

- ✓ No Prep, Ready-to-Use Resource in Google and Office Format
- ✓ Includes Comprehension and Extension Questions

Case Study - The Arctic Fox and Climate Change



TWF



Teaching Timeline and Resources

Outlined and Explained

Climate Change and Global Warming Unit – Teaching Timeline

Day	Resource	Role in the unit
1	Climate Change & Global Warming Lesson (student & teacher slides, worksheets and videos)	Start with a comprehensive lesson that defines weather vs. climate, explains Earth's energy balance, the greenhouse effect, the enhanced greenhouse effect and the carbon cycle. Include slides on greenhouse gases and climate proxies. As with your other "core lessons," provide editable PowerPoint/Google Slides, a student version, worksheet and exit ticket.
2	Climate Change Lab Station Activity (7 stations)	Rotate students through hands-on stations exploring topics such as greenhouse gases, carbon cycle, sea-level rise, evidence for past climate change and human impacts. Each station includes a description card, a reading or video and questions; provide a "passport" recording sheet and optional word-scramble/word-search puzzle—just like your other lab-station activities.
3	Climate Change – Device-Based Scavenger Hunt	Use QR codes or hyperlinks to send students to videos, simulations, quizzes and word puzzles about the greenhouse effect, greenhouse gases, carbon cycle and mitigation strategies. Students work in pairs or teams to complete five tasks, reinforcing concepts while getting out of their seats.
4	Climate-Change Reading Comprehension Passage & Questions	Integrate literacy by assigning a reading passage on climate change. The article should cover causes and effects of global warming, the role of CO ₂ , feedback loops, historic climate change and solutions.
5	Climate-Change Case Study or Project (e.g. Green Sea Turtles, Adélie Penguins or Urban Sprawl)	Have students examine a specific climate-change impact through a structured case study or research project. There are multiple case studies to choose from.
6	Climate Change & Global Warming – Speed Quizzing	End the unit with a fast-moving review. This activity contains 32 flash-card questions covering weather vs. climate, Earth's energy supply, the atmosphere, greenhouse gases, the greenhouse effect, the role of the carbon cycle, effects of global warming, historic climate change, climate proxies and actions we can take. Students quiz each other, swap cards and move around the room; the resource is fully editable and requires very little prep.

How to Use This Climate-Change Unit

Pacing: This climate change sequence is designed for roughly **6 class periods**, but you can expand or compress it to suit your schedule. Use one day each for the core lesson, lab stations, scavenger hunt, reading comprehension, case study/project, and speed-quizzing review. If you have additional time, you could split complex topics (e.g. greenhouse gases vs. carbon cycle) into separate days or assign the reading passage as homework.

Assessment:

- Use the **exit ticket** from the main climate change lesson and the **lab-station passports** to gauge students' understanding early in the unit.
- The **case-study/project rubric** serves as a summative assessment that measures research and presentation skills.
- The **reading comprehension questions** check students' ability to analyze a scientific article.
- The **Speed Quizzing** activity offers a fun, fast-paced review of key concepts like weather vs. climate, greenhouse gases, the carbon cycle and historic climate change.

Who is this Bundle for?

- **Science teachers who want multiple resources at their fingertips including lessons and a variety of activities, in order to engage their students.**
- **Teachers who don't have time to develop their own resources or organize what to teach and when.**