

Climate Change Unit

- **Covers: Weather, Climate, Greenhouse Effect, Atmosphere, and the Carbon Cycle**
- **Lesson & Engaging Activities**
- **Daily Teaching Schedule**



Climate Change and Global Warming



Unit - Main Topics

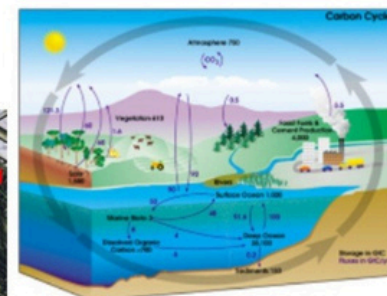
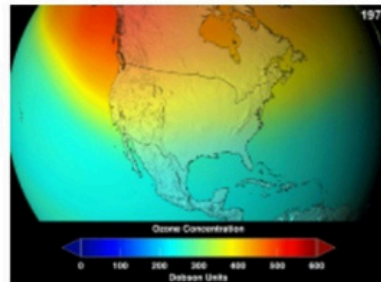
- Climate Change
- Global Warming

Includes:

- 1 X 3-Day Lesson
- 9 Activities

Topics Include:

- Weather vs. Climate
- Earth's energy supply
- The atmosphere
- Greenhouse gases
- The greenhouse effect
- Enhanced greenhouse effect
- The role of the carbon cycle
- Effects of global warming
- Historic climate change
- Climate proxies
- What you can do



Lesson Includes Teacher and Student Versions - Videos Embedded in Lessons

Climate Change and Global Warming

- Climate Change vs. Global Warming
- Weather vs. Climate
- Air Convection Currents
- Earth's Climate System
- The Ozone Layer
- The Greenhouse Effect
- Greenhouse Gases
- Greenhouse Gas Emissions
- Global Warming and the Carbon Cycle
- Carbon Sinks
- Effects of Global Warming
- Historical Climate Change

This digital presentation includes both Google and Office resources and is **Google Classroom Ready**

Where Is All The Carbon?

- A carbon sink is a natural reservoir that stores carbon-containing compounds accumulated over a period of time
- The main natural carbon sinks include:
 - Oceans – carbon is dissolved
 - Organic matter – living things are composed largely of carbon

Videos embedded directly into the slides. One-click access

The Greenhouse Effect

- Light passes into the greenhouse through the glass
- The plants inside absorb the light energy and emit infrared (heat) radiation which can't pass through the glass
- As the infrared radiation bounces around, heat is created and warms the area inside

Student and Teacher versions of the presentations

Google Access

Thank you for your purchase. Clicking the link button below will automatically create a copy of the Google resources and place them into your Google Drive. You'll find the folder inside the "Shared with me" section on the left side of your Drive.

Important: Before you click, make sure you're signed in to the Google account you'd like the resources placed into. If the resources are added to the wrong account, simply sign out and then into the correct one and repeat the process.

[Click here to place a copy of your resources into your Google account](#)

Google Classroom Ready
One-Click Google Slides Access

Engaging Activities

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
- Videos
- Games
- Word Scramble
- and more



Climate Change Lab Station Activity



7 Lab Station Activities to get your kids out of their seats and engaged in their learning

Climate Change Bell Ringers, Class Warm-Ups, and Exit Tickets



Climate Change

Provide 3 potential impacts of climate change.

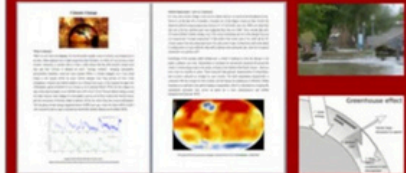


Climate Change

1. Explain to someone who may not be familiar with the concept, the connection between CO₂ and climate change.

2. How do humans affect the carbon cycle?

Climate Change Scientific Reading Comprehension Article



Improve your students' Scientific Literacy and Analysis Skills, use as an Emergency Substitute Plan or create Applicability in your classroom

Climate Change Word Search and Scramble

THREE Activities in One!

1. Basic 25-Term Word Search
2. Scrambled Words Word Search
3. Word Scramble and Define Activity



TWF



Climate Change Crossword Puzzle

- 15 - Term Crossword
- Includes 2 Versions
 - Version 1 - No Word Bank
 - Version 2 - Includes a Word Bank

TWF



Case Study – Koalas and Climate Change



TWF

Case Study – Polar Bears and Climate Change



TWF

Case Study "Fragile Balance: Investigating the Impact of Climate Change on Coral Reefs"



TWF

Improve your students' Scientific Literacy and Analysis Skills, use as an Emergency Substitute Plan or create Applicability in your classroom.

TWF

Daily Teaching Schedule

UNIT – Climate Change and Global Warming ***14-15 DAYS TOTAL***

Climate Change and Global Warming 13-14 days			
Number of Day(s)	Course Content	Teaching Resources	NGSS
4-5	• Weather vs. Climate • Earth's energy supply • The atmosphere • Greenhouse gases • The greenhouse effect • Enhanced greenhouse effect • The role of the carbon cycle • Effects of global warming • Historic climate change • Climate proxies • What you can do	Climate Change and Global Warming Lesson Climate Change - Bell Ringers, Class Warm-Ups, and Exit Tickets	HS-LS2-6 HS-LS2-7 HS-LS4-5 HS-LS4-6 HS-ESS2-2 HS-ESS2-4 HS-ESS3-5 HS-ESS3-6
1	Hands-on review activity	Climate Change – A Device-Based Scavenger Hunt Activity	
1	Hands-on review activity	Climate Change - 7 Engaging Lab Station Activities	
1	Review activity	Climate Change: The Reality and Danger - Science Reading Article	
1	Review activity	Ecology Case Study - Investigating the Impact of Climate Change on Coral Reefs	
1	Review activity	Climate Change Case Study - Polar Bears	
1	Review activity	Climate Change Case Study - Koalas and Climate Change	
1	Review activity	Climate Change Word Search and Scramble Activity	
1	Review activity	Climate Change Crossword Puzzle Activity	
Assessments	There are multiple assessments included throughout this unit portion. UNIT TEST		

The Following Resources are Included

- [Climate Change and Global Warming - Lesson](#)
- [Climate Change - Bell Ringers, Class Warm-Ups, and Exit Tickets](#)
- [Climate Change – Digital Scavenger Hunt Activity](#)
- [Climate Change - Lab Station Activity](#)
- [Climate Change: The Reality and Danger - Science Reading Article](#)
- [Ecology Case Study - Investigating the Impact of Climate Change on Coral Reefs](#)
- [Climate Change Case Study - Polar Bears](#)
- [Climate Change Case Study - Koalas and Climate Change](#)
- [Climate Change Word Search and Scramble Activity](#)
- [Climate Change Crossword Puzzle Activity](#)

Who's It For?

- **High School Biology Teachers**
- **Teachers using NGSS**
- **Teachers who want to increase their student's engagement and retention**
- **Teachers not looking to reinvent the wheel**



Save yourself the **STRESS AND TIME**



TWF

Spend your time WISELY



TWF