

Lesson 9

Climate Change



Unit Title: Climate Change	
Theme: Ecosystems & Cycles	Grade Level: 9-10
# of sessions for the unit: class period(s) 2-3 (~45min each)	Session #9: Relationship of Cause and Effect of Rapid Climate Change
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Unit Description

Provided in a separate document. *Please see High School Curriculum Overview.*

Standard(s)

HS-LS2-7. Analyze direct and indirect effects of human activities on biodiversity and ecosystem health, specifically habitat fragmentation, introduction of non-native or invasive species, overharvesting, pollution, and climate change.

Unit Goals

Students will understand the causes and effects and possible solutions of climate change with an emphasis on carbon sequestration (capture)

Lesson Objectives & Essential Vocabulary

Students will be able understand the relationship between the causes and effects of rapid global climate change.

Essential vocabulary:

- desertification
- acid rain
- ocean acidification
- erosion
- ocean currents
- weather patterns
- severe weather events
- global warming
- tipping point
- permafrost

NOTE:

If you can predict which students may not be able to achieve the goals, then you need to reduce barriers to maximize learning for all.

Note any potential barriers to the lesson – consider variability

vocab/reading ability — provide scaffolding, diagrams to clarify text, vocab assignments: word splash, etc.

Writing skills: solution provide writing prompts or sentence frames

NOTE:

Provide options — refer to the UDL guidelines as a way to ensure that all learners can demonstrate achievement of goals. For ideas: <http://bit.ly/1d5bjtS>

Evaluation/Assessment

(directly linked to the goals, i.e., Formative/Ongoing Assessment or Summative/End of Lesson Assessment)

rubric to assess project/presentation of different causes & effects of rapid climate change

teacher check ins for understanding

Test/Quiz developed by students on projects

NOTE: Consider the [UDL Guidelines](#) in selecting methods and materials to ensure that you provide options for engagement, representation, and action and expression.

Methods

(e.g., Anticipatory Set, Introduce and Model New Knowledge, Provide Guided Practice, Provide Independent Practice)

1. Recap vocabulary and activate prior knowledge from lesson 8 as vocabulary terms are the same.
2. Students present projects on causes and effects of rapid global climate change. Teachers can provide guided notes to ensure student understanding. Teachers will ensure all students will have access to the projects (shared in google classroom, or other platform, physically available in the classroom, etc.)
3. Students will generate questions based on their project for teachers to assimilate into a test
4. Teacher generated graphic organizer linking causes and effects

Materials

1. Text , developed rubric: https://docs.google.com/spreadsheets/d/1yS8oXLDmfl4TqZITVTRv7Og4Cw12Ve1ORxC_hm03RD0/edit?usp=sharing, student generated project from lesson 7 & 8, access to computers, library media center

Notes and Comments

Lesson 7,8 & 9 are typically executed in conjunction with one another as causes lead to effects.

Grading Guide

Lesson 9 Project Rubric

CATEGORY	4	3	2	1
Purpose	The purpose of the project is clearly identified and stated.	The purpose of the project is identified, but is stated in a somewhat unclear manner.	The purpose of the project is partially identified, and is stated in a somewhat unclear manner.	The purpose of the project is erroneous or irrelevant.
Factual Information	Facts are clearly stated and supported by legitimate evidence/data	Facts are clearly stated and supported by some evidence/data	Facts are stated but lack evidence/data to support	No facts nor evidence/data are present
Organization	The project is well organized, easily understood	The project is somewhat organized and understandable	The project shows little organization and is difficult to understand	The project is disorganized and cannot be understood
Neatness, Spelling and Grammar	The project is very neat, contains no spelling nor grammatical errors	The project is neat, and contains few spelling and grammatical errors	The project is somewhat neat and contains some spelling and grammatical errors	The project is not neat and contains many spelling and grammatical errors.