

Biology 5003
The Biology of Life:
Integrated Perspectives

Classroom Lesson Plan

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Objective of Lesson

- Have students research various ways that humans negatively impact the environment.
- Present synthesized findings to the class in the form of a presentation, a classroom activity, and a 10-question quiz.
- Interpret data displays associated with the environmental concerns of focus.

CMCS Addressed

- Standard 2: Life Science (8th Grade)**
- Prepared Graduate Competencies:** Explore how living systems interact with their environment and are interdependent with other systems, including humans.
- Concepts and Skills students know include:**
- 1. Humans are part of Earth's ecosystems. Human activities can deliberately or inadvertently, alter the equilibrium in ecosystems.

CMCS Addressed

- Standard: Math (8th Grade)**
- Standard 2: Patterns, Functions, and Algebraic Structures**
- Eighth Grade Expectations**
- 1. Descriptions of linear pattern, relation, and function relationships using equations, tables, and graphs in problem solving situations, and conversions among these representations.

CMCS Addressed

- Standard: Math (8th Grade)**
- Standard 3: Data Analysis, Statistics, and Probability**
- Eighth Grade Expectations**
- 1. Analysis and interpretation of two-variable data.

5-E Integration

- Engage:** Comic Strip Activity
- Explore:** Researching For Each Group's Presentation
- Explain:** Project Presentation/Activities
- Elaborate:** Write A Letter To A Congressman Explaining The Main Points Of Each Group's Presentation (e.g., The Environmental Issue, Consequences, Solutions, Etc.)
- Evaluate:** Quizzes For Each Presentation; Create Two Comic Strips About Environmental Issues That Were Not Assigned To Your Group To Research/Present On; Data Displays And Interpretation

Engage

- Present Comic on Environmental Issues
- Leave speech bubbles blank
- Have students interpret the comic and fill in the speech bubbles

Engage

Explore

See Example Of Rubric For Presentation Requirements

Topics To Research Include:

- Water Rights And Usage
- HABs
- Energy Concerns
- Disease
- Coral Reefs
- Climate Change
- Metals
- Endocrine-Disrupting Chemicals

Explain

- Presentations According To Rubric Requirements:
- Information Presentation
- Classroom Activity
- Visual Diagram
- 10-Question Quiz

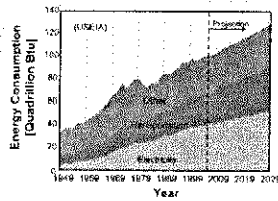
Elaborate

- Letter To A Congressman:
- Literacy Piece
- Social Studies Focus
- Include All Relevant Points In Each Group's Presentation To Address The Following:
 - Describe The Environmental Concerns
 - Describe Environmental Consequences
 - Describe Viable Solutions
 - Discuss How Sustainability Is Involved

Evaluate

- [During Presentations]: A 10-Question Quiz Written By The Presenting Group
- Each Student Will Create Two Comics:
 - Based On Other Group's Environmental Concerns
 - Must Include Visual and Written Components (Analytically Reasoning)
 - Must Address A Persuasive Point Of View Regarding The Environmental Issues
 - 4-6 Frames Long
- Present Students With Graphs Associated With The Issues That Were Presented On:
 - Make Connections
 - Students Must Interpret The Graphs And Explain The Issue That Is Displayed

Evaluate



And, To Conclude...

