

Save Our Coral Reefs Choice Board

A coral reef lesson differentiation & enrichment tool

Learning Goals:

Goals accomplished will depend on your choices from the board.

- I can construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations, or an argument supported by evidence for how increases in human population and consumption of natural resources impact Earth's systems.
- I can apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.
- I can ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.
- I can evaluate competing design solutions for maintaining biodiversity and ecosystem services.

Directions for Use:

Choose **two** options from the board as directed by your teacher. All students must complete the choice in the center of the board.

You will have one week to complete your choices.

1. Days 1-2:
 - a. Research your choices using the provided resource list.
 - b. Take notes or collect information as instructed by your teacher, using the provided notes sheets or another method you've learned in class.
 - c. Please paraphrase all notes, and keep track of your sources.
2. Days 3-5: Complete projects
3. Day 6:
 - a. Be ready for sharing day!

Name(s): _____ Date _____

Coral Reef Choice Board

Instructions: Choose two items on the board as instructed. Each student must complete the center block.

<p>Explain two of the human impacts on coral reefs in a four paragraph essay. The essay should include an introduction that gives some basic facts, two body paragraphs and a conclusion.</p>	<p>Summarize two of the impacts of human activity on coral reefs in a speech to the class or a flipgrid video. Your video or speech should be at least two minutes in length. You may include some basic facts about coral reefs.</p>	<p>On a poster that is at least 18 x 24", list as many factors as you can that are contributing to the death of coral reefs. Use color and drawings to help emphasize your facts.</p>
<p>Evaluate several solutions for coral reef bleaching in a table or chart, listing the solution, and the pros and cons of each.</p>	<p>All Students: Read this article: Coral Bleaching the Shape of Life The Story of the Animal Kingdom</p> <p>And watch these videos: Coral Reefs 101 National Geographic</p>	<p>In your opinion, what is the best way for kids to help prevent coral reef damage?</p> <p>Create 3 posters to hang in your school that explain the problem and this solution.</p>
<p>Predict which solution will be the most effective in essay format. Include at least two reasons why you believe this solution is going to be the most successful.</p>	<p>Create a Kahoot of at least ten questions that tests your classmates' knowledge about global climate change over the past century.</p> <p>Include a study guide for students to read before the Quizlet.</p>	<p>Design a method of your own for preventing coral bleaching.</p> <p>Create a proposal you would take to the government in control of the area surrounding the Florida Keys. Your proposal should include drawings and a written explanation of your solution, as well as an estimated cost for the project. Include them in a packet with a title/cover page.</p>

Name(s): _____ Date: _____

Coral Reef Choice Board Student Note Sheet

Project Choice Title:

Source #1 Name:

Para #	Fact:



Name(s): _____ Date: _____

Coral Reef Choice Board Student Note Sheet

Project Choice Title:

Source #2 Name:

Para #	Fact:

Name(s): _____ Date: _____

Coral Reef Choice Board Student Note Sheet

Project Choice Title:

Source #3 Name:

Para #	Fact:

Name(s): _____ Date: _____

Coral Reef Choice Board Student Note Sheet

Project Choice Title:

Source #4 Name:

Para #	Fact:

Name(s): _____ Date: _____

Coral Reef Choice Board Rubric

Goal	Advanced (5)	Proficient (4.5)	Developing (4)	Beginning (3.5)
Student used resources from multiple links, integrating information	Student used resources from multiple links, integrating information, including advanced resources, and artfully integrated the information	Student used resources from multiple links, integrating information	Student used resources from multiple links, although the information may not be clearly integrated	Student used resources from one link
Student clearly demonstrated knowledge of human impact on coral systems.	Student clearly demonstrated advanced knowledge of human impact on coral systems. Instructions were followed and product is beyond expectations.	Student clearly demonstrated knowledge of human impact on coral systems. Instructions were followed.	Student demonstrated partial knowledge of human impact on coral systems. They may have few examples or limited details.	Student demonstrated limited or misinformed knowledge of human impact on coral systems.
Student clearly demonstrated knowledge regarding solutions to coral system problems, including a discussion on human impact.	Student demonstrated advanced knowledge regarding solutions to coral system problems, and proposed novel solutions regarding human impact.	Student clearly demonstrated knowledge regarding solutions to coral system problems, including a discussion on human impact.	Student clearly demonstrated partial regarding solutions to coral system problems, including a limited discussion on human impact.	Student clearly demonstrated limited regarding solutions to coral system problems, and may not have discussed human impact.
Choice products are complete and thorough, with few grammatical and spelling errors.	Choice products are complete and thorough, generally free from grammatical and spelling errors.	Choice products are complete and thorough, with some grammatical and spelling errors.	Choice products are complete and thorough, with many grammatical and spelling errors.	Choice products are not complete and thorough, with grammatical and spelling errors getting in the way of understanding.
Total:				

Coral Reef Choice Board Resource List

Background Information:

[Coral Reefs for Kids | Learn about the 3 types of coral reefs Fringe, Barrier and Atoll](#)

[Coral Reefs Ecology & Biodiversity](#)

[What Do Corals Reefs Need to Survive?](#)

[Slow Life: Time-Lapse on the Coral Reef | Smithsonian Ocean](#)

[What if all the coral reefs disappeared? | HowStuffWorks](#)

Video list: <https://florida.pbslearningmedia.org/resource/e740c41e-71a2-4c3e-85eb-c64534ca890c/coral-reef-ecology-videos/>

Problems:

[What Would Happen If All The Coral Reefs Died Off?](#)

[Coral Reefs — Global Issues](#)

[Threats to Coral Reefs | US EPA](#)

[Healthy Oceans: Coral Reefs and Climate Change | California Academy of Sciences](#)

[What is coral bleaching?](#)

[Coral bleaching 101 - coral bleaching explained | Great Barrier Reef Marine Park Authority](#)

Solutions:

[The world's coral reefs are dying—here's how scientists plan to save them](#)

[Saving Ocean Biodiversity: Coral Restoration | National Geographic Society](#)

[What You Can Do to Help Protect Coral Reefs | US EPA](#)

[Counting Coral](#)

[Ten Simple Things You Can Do To Protect Coral Reefs - Biosphere Foundation](#)

Global Climate Change:

[What Is Climate Change? | NASA Climate Kids](#)

[Climate change](#)

[Climate Change: Crash Course Kids #41.2](#)

Lesson written by Sandy Bean

[The Bean Center for Gifted Enrichment](#)

