



# DIVE DEEPER: Blue Carbon Standard Teacher Lesson Plan

## SYNOPSIS

What is blue carbon? What are coastal ecosystems and how do they help us address climate change? What other environmental services do coastal ecosystems provide? What is the relationship between the atmosphere and the ocean with respect to carbon sinks and sources? How is climate change affecting the ocean and coastal ecosystems? What are solutions to halting the loss of blue carbon? This course teaches the main concepts in the *Just Have a Think* video #93: Blue Carbon: An Invisible Time Bomb.

## TOTAL TIME

One 45-50 min (one class period).

## ACTIVITY

Watch the relevant video as a class (10-15 minutes); then have the students work either in small groups or individually online through active student responding (answering questions, receiving hints and feedback for each question). The students should use the hints if they don't know the answer. Optional discussion on connections: Ask the students about a time they went to the ocean. How is the ocean connected to their own environment? The video is embedded in the online course, and also available on YouTube at: <https://youtu.be/cDuzVrfBRww>

## LEARNING OUTCOMES

*Modified Bloom's Taxonomy: Definition/Conceptual; Explain/Identify; Apply; Critique/Analyze*

- Students will understand **key terms** underlying coastal ecosystems, blue carbon, marine heatwaves, and mangroves.
- Students will **explain/identify** the climatic and ecological benefits of coastal ecosystems.
- Students will **evaluate climate data** showing global sources of carbon sinks and carbon sources at the ocean/atmospheric boundary and **evaluate solutions** to blue carbon loss.

## PLANNING

Register your class by emailing: [support@behaviordevelopmentsolutions.com](mailto:support@behaviordevelopmentsolutions.com)

## SCIENCE STANDARDS

● NGSS  
● Common Core

