



# DIVE DEEPER: Great Ocean Conveyor Teacher Lesson Plan (Part 1)

## SYNOPSIS

What causes ocean currents, and how could they be affected by climate change? This course provides understanding of the theory of and impacts of ocean circulation; oceanic current movement caused by density differences (thermohaline circulation) and the wind; surface and bottom currents; the connection between the oceans and climate change, weather, and the food web; important currents; and blue ocean events. The course teaches the main concepts in the first half of the *Just Have a Think* Video #48: Arctic Disintegration.

## 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: What ocean currents have they experienced? Tides? Any other? What drives tides? The video is embedded in the online course, and also available on YouTube at: <https://youtu.be/kpvUivhCw2Y>

## LEARNING OUTCOMES

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

- Students will understand **key terms** underlying thermohaline circulation, currents, the Arctic Circumpolar Current, upwelling, overturning, stratification, and blue ocean event.
- Students will **explain/identify** the various elements of the ocean conveyor belt, and its climatic and ecological benefits.

## PLANNING

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

## SCIENCE STANDARDS



NGSS



Common Core

HS-ESS2-2

HS-ESS3-4

HS-ESS3-5

CCSS.ELA-LITERACY.  
RST 9-10.2/  
11-12.2.

CCSS.ELA-LITERACY.  
RST 9-10.4/  
11-12.4.