



DIVE DEEPER: Arctic Disintegration Teacher Lesson Plan

SYNOPSIS

Why is Arctic sea ice melting and how does this impact our climate? What is a Blue Ocean event, the albedo effect, Arctic amplification, tipping point, and permafrost? What is the role of the ocean in heat absorption and how does feedback affect climate change in the Arctic? What global solutions exist? This course teaches the main concepts in the *Just Have a Think* Video #120: Arctic Disintegration.

TOTAL TIME

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. Additional discussion on connections: Ask the students if they've experienced warmer temperatures. How is a warmer climate affecting them and their family? What sustainable solutions do they think could keep their house cooler? The video is embedded in the online course, and also available on YouTube at: <https://youtu.be/kz6WxTH-p3o>

LEARNING OUTCOMES

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

- Students will understand **key terms** underlying climate change in the Arctic.
- Students will **explain/identify** the relationship between CO₂ and temperature change, the role of the ocean in heat absorption, and feedback).
- Students will **evaluate solutions** to Arctic warming.

PLANNING

Register your class by emailing: 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.