



The Right Whale—Developing Student Awareness and Action through the Arts

Cooperative Group Jigsaw Lesson

Lesson Plan

Objectives:

- Students will be able to verbally express the point of view of their assigned stakeholder group.
- Students will work in a group to discuss possible solutions to the challenges facing the North Atlantic right whale, taking all stakeholder views into account.
- Students will understand how creative media can be used to explore and start a dialogue around environmental issues by creating a storyboard for a short film that represents the challenges and potential solutions for protecting North Atlantic right whales. (Teachers could modify the final product to be a work of visual art or poetry as well.)

Teaching Procedures:

Lesson Timespan:

The suggested times in this lesson plan allow for the activity to be completed in a 1-hour class session; however, 2-3 class sessions would be ideal in order to allow students enough time to read, understand, and consider multiple perspectives and possible solutions to this complex problem. Plan for additional time for groups to complete a final creative project.

Preparation:

- Students will be divided into groups of 4. One member of each group will represent a different stakeholder perspective:
 - Fishermen and Lobstermen
 - Government Official (represented by NOAA)
 - Advocacy Group (represented by Conservation Law Foundation)
 - Ocean/Whales
- We used colored folders to place students in groups of 4 and pictures clipped to the folders to represent each group member's assigned stakeholder.
- Folders should include the article relating to the assigned stakeholder group, stakeholder worksheet, storyboard worksheet, right whale fact sheet, and an "exit card" (index card).
- Each group should have access to art supplies.

Materials:

- Articles for each stakeholder group
- Jigsaw worksheet
- Storyboard worksheet
- North Atlantic right whale fact sheet
- Art supplies for storyboards (colored pencils, markers, crayons, etc.)
- Index cards (for exit card—1 per student)
- Colored folders (optional)
- Pictures or stickers to represent stakeholder groups (optional)
- Computer with internet connection (to share Bow Seat's right whale video)
- Time keeper and signal to move to next portion of lesson

Cooperative Group Jigsaw Activity:

- 1) GROUP ORGANIZATION/INTRODUCTIONS—5 MINUTES: Divide students into their jigsaw groups and give an overview of the jigsaw directions.
- 2) PREVIEW—3 MINUTES: Teacher will preview the topic of the challenges facing North Atlantic right whales and the *Healthy Whale, Healthy Ocean Challenge* by showing Bow Seat Ocean Awareness Programs' video. (~1:30)
bit.ly/bowseat-rightwhale
 - Ask students what they learned about the North Atlantic right whale (may also share the North Atlantic Right Whale Fact Sheet at this point).
 - For many resources about right whales for all age levels from K-12, please visit our Resources page: <https://bowseat.org/resources/for-students/right-whales/>
 - Be sure that students understand the meaning of "stakeholder" in an environmental context.
 - Definition: Someone with a vested interest in an environmental policy; someone who stands to gain or lose from the current environmental situation or a change in environmental policy. "Someone" includes people, animals, and the environment itself.
- 3) READ—8 MINUTES: Students will independently read the article assigned to them (based on their stakeholder group). While they read, they will fill in the front of their stakeholder worksheet and note the main points they will share with their full group. Encourage students to write from the first-person point of view, as if they are in fact a member of their assigned stakeholder group.
 - How is my group connected to the right whale?
 - Why is ocean health important to my group?
 - What are the concerns of my group?
 - What outcome does my group want?

Optional Extension—If you are able to devote more than an hour to this class, you can choose to place students in an Expert Group discussion. Here all members of the same stakeholder group meet and discuss their findings before sharing the information with their jigsaw group. This helps ensure that all students feel confident in the information they are sharing and also gives the teacher a chance to check in with each group to gauge students' understanding of the article and their stakeholder's point of view.

Teachers could also extend upon this portion of the lesson by providing each Expert Group with multiple articles that express their stakeholder's point of view, in order to aid students' understanding of multiple positions and beliefs within their stakeholder group.

- 4) SHARE—8 MINUTES: Students will each have 2 minutes to share the perspective of their stakeholder group with their jigsaw group. Again, encourage students to speak from the first-person point of view, as if they are a member of that stakeholder group—For example: "I am a lobsterman, and I am connected to the right whale because..."
- 5) DISCUSS—10 MINUTES: Groups will discuss the threats facing North Atlantic right whales and the challenges this causes for different stakeholder groups. They will work together to fill in the back of the stakeholder worksheet and discuss possible solutions to the problem, taking all stakeholder views into account.
 - What did you learn about right whales?
 - How is the health of right whales connected to the health of the ocean?
 - What are some potential solutions that take into account all stakeholder groups?
- 6) PLAN and CREATE—10 MINUTES: Students will use the storyboard worksheet to plan a short film which shows both the challenges facing right whales and potential solutions to these problems taking all stakeholder views into account.

- 7) PRESENT—10 MINUTES: Each group will present their storyboard to the full class.
- 8) Please remind students about the *Healthy Whale, Healthy Ocean Challenge*, where they can submit a completed short film, poem, or piece of visual art and earn a scholarship of up to \$750!
www.healthywhale.org.
- 9) WRAP UP—5 MINUTES: Each student will complete an “exit card” detailing either:
 - Something they learned
 - A question they have
 - Something they are left thinking about

Assessment:

- Students can be assessed in several ways:
 - By their answers to the stakeholder worksheet
 - By their visual storyboard for the short film and their presentation to the class
 - By their exit card

JIGSAW GUIDE

- 1) GROUP ORGANIZATION: Put students in groups; assign stakeholders and articles within groups.
- 2) READ: Students independently read their article and take notes.
- 3) SHARE: Each student will share their “expert knowledge” with the full group
- 4) DISCUSS/PLAN/CREATE: Groups discuss what they learned from each other and work together to create a product that displays their understanding of the topic.
- 5) PRESENT: Groups present their project to the full class.

Healthy Whale, Healthy Ocean
 Jigsaw Notes

Stakeholder Group: _____

Complete these questions independently using the information from the article representing your stakeholder group.

How is my group connected to the right whale?	Why is ocean health important to my group?	What are the concerns of my group?	What outcome does my group want?

Complete these questions with the help of all group members and the knowledge of their stakeholder groups.

What did you learn about right whales?	How is the health of right whales connected to the health of the ocean?	What are some potential solutions that take into account all stakeholder groups?

Create Your Storyboard

A sequence of drawings representing the shots planned for a movie.





Common Core Standards

Standards for English Language Arts 6-12

College and Career Readiness Anchor Standards for Reading (CCRA.R) -Informational Text-

Key Ideas and Details

CCRA.R.1: Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

CCRA.R.2: Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.

CCRA.R.3: Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

Integration of Knowledge and Ideas

CCRA.R.7: Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.

CCRA.R.8: Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

CCRA.R.9: Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range of Reading and Level of Text Complexity

CCRA.R.10: Read and comprehend complex literary and informational texts independently and proficiently.

College and Career Readiness Anchor Standards for Speaking and Listening (CCRA.SL)

Comprehension and Collaboration

CCRA.SL.1: Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

CCRA.SL.2: Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

Presentation of Knowledge and Ideas

CCRA.SL.4: Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

CCRA.SL.5: Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

MA Learning Standards

Science and Technology/Engineering (STE)

The Healthy Whale, Healthy Ocean Challenge aligns with the MA Learning Standards of Relevant Contexts for Teaching Science and Technology/Engineering in the areas of *Ocean Literacy* and *Environmental Literacy/Sustainability*.

Grade 7: Earth and Space Sciences (ESS3.) Earth and Human Activity

7.MS-ESS3-4. Construct an argument supported by evidence that human activities and technologies can mitigate the impact of increases in human population and per capita consumption of natural resources on the environment

Grade 7: Life Science (LS2.) Ecosystems: Interactions, Energy, Dynamics

7.MS-LS2-1. Analyze and interpret data to provide evidence for the effects of periods of abundant and scarce resources on the growth of organisms and the size of populations on an ecosystem.

7.MS-LS2-2. Describe how relationships among and between organisms in an ecosystem can be competitive predatory, parasitic, and mutually beneficial and that these interactions are found across multiple ecosystems.

Grade 8: Life Science (LS1.) From Molecules to Organisms: Structures and Processes

8.MS-LS1-5. Construct an argument based on evidence for how environmental and genetic factors influence the growth of organisms.

High School: Earth and Space Science (ESS3.) Earth and Human Activity

HS-ESS3-3. Illustrate relationships among management of natural resources, the sustainability of human populations and biodiversity.

Arts

Elementary

Visual Arts | Observation, Abstraction, Invention, and Expression

ARTS.VA.03.03. PK-4_– Create 2D or 3D artwork from memory or imagination to tell a story or embody an idea or fantasy.

Middle School

Arts Disciplines: Visual Arts | Observation, Abstraction, Invention, and Expression

ARTS.VA.03.05 [5-8] – Create symbolic artwork by substituting symbols for objects, relationships or ideas.

ARTS.VA.03.06 [5-8] – Create artwork that employs the use of free form symbolic imagery that demonstrates personal invention, and/or conveys ideas and emotions.

High School

Arts Disciplines: Visual Arts | Elements and Principles of Design

ARTS.VA.02.16 [HS] – Create artwork that demonstrates a purposeful use of the elements and principles of design to convey meaning and emotion.

Arts Disciplines: Visual Arts | Observation, Abstraction, Invention, and Expression

ARTS.Va.03.12 [HS] – Demonstrate the ability to use representation, abstraction, or symbolism to create 2D and 3D artwork that conveys a personal point of view about issues and ideas.

English Language Arts and Literacy [ELA.PK-12] – Anchor Standards

[R.PK-12] Reading-Key Ideas and Details

R.PK-12.1 Read closely to determine what a text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from a text.

R.PK-12.2 Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.

[R.PK-12] Reading-Integration of Knowledge and Ideas

R.PK-12.7 Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

R.PK-12.8 Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

R.PK-12.9 Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

[R.PK-12] Reading-Range of Reading and Level of Text Complexity

R.PK-12.10 Independently and proficiently read and comprehend complex literary and informational texts.

[SL.PK-12] Speaking and Listening-Comprehension and Collaboration

SL.PK-12.1 Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

SL.PK-12.2 Integrate and evaluate information presented in diverse media formats, including visually, quantitatively, and orally.

SL.PK-12.3 Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

[SL.PK-12] Speaking and Listening-Presentation of Knowledge and Ideas

SL.PK-12.4 Present information, findings, and supporting evidence such that listeners can follow the lines of listening; the organization, development, vocabulary, and style are appropriate to an audience.