

To do in class after the field trip, before the final classroom presentation

1. Students will read a couple paragraphs to reflect on topics introduced over the course of the school year. The reading is available on the next page and online at oceanconnectors.org/resources.

The reading contains new vocabulary, indicated by *italics*, so it is best if teachers read the material in advance and prepare to work through it with the children.

- 2. After reading, students respond to the reflection questions inside their journals using complete sentences.
- 3. Please review the answers together in class.
- 4. This lesson covers 5th grade Common Core State Standards in ELA/Literacy, and Next Generation Science Standards 5-LS2-1, 5-ESS3-1, and 5-PS1-A.
- 5. Project Based Extension: Have students design and draw a new system for seafood labeling that will inform consumers and help whales and the environment. Key questions to consider:
 - What information is important for consumers to know about their seafood purchases?
 - How can technology prevent whales and other marine species from being captured as bycatch?
 - Why might it matter in what part of the world our seafood is being caught?

WHALE REFLECTION ASSIGNMENT

This year you learned about whales, and how we can help protect them for the future. Whales are such large, long-lived animals, it may be tempting to think they can withstand all the impacts of human activities. In reality, some of our shipping and fishing methods cause major harm to whales and ocean ecosystems. Gray whales in the Eastern Pacific Ocean, such as around San Diego, are doing well and recovering from a history of whaling, but this is not the case for many marine mammals. North Atlantic right whales are *critically endangered*. There are only about 400 of these whales remaining today. According to the Marine Mammal Commission, *bycatch* is the greatest direct cause of marine mammal injury and death around the world. Bycatch is when an animal is accidentally entangled in fishing nets or gear. Whales need to breathe air in order to survive, so if they become entangled, they can drown. Bycatch is sometimes caused by "*ghost nets*", which are abandoned fishing nets that float through the ocean continuing to trap other animals. Ship strikes, which happen when ships collide with whales, are another serious problem.

One of the best ways to help whales and prevent bycatch is to put careful thought into your seafood choices, or to "consider a fish". Look for the Marine Stewardship Council logo, a small blue symbol (pictured here) showing us that sustainable fishing practices were used. We should support sustainable fishing so that we can have more responsible fishermen and less bycatch. It is especially important to look for sustainably caught shrimp, since shrimp are often captured through trawling, a fishing method that involves dragging a big net from a boat. A great deal of bycatch is usually linked to trawling. We should also make an effort to buy seafood that is captured in U.S. waters, because it is controlled by strict U.S. fishing laws. Even better, try going "meat-free" one day per week to prevent climate change and reduce your overall impact on the environment!



Answer the questions below in your journal using *complete sentences*.

- 1. What is the difference between the populations of Eastern Pacific gray whales and North Atlantic right whales?
- 2. What is bycatch, and how can we help to prevent it?
- 3. What are ghost nets?
- 4. Why is it important to "consider a fish" before buying seafood?
- 5. What is the Marine Stewardship Council logo and why is it important?
- 6. Why is trawling harmful to whales and the ocean?

WHALE REFLECTION ASSIGNMENT

Answer Key

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One of the best ways to help whales and prevent bycatch is to put careful thought into your seafood choices, or to "consider a fish". Look for the Marine Stewardship Council logo, a small blue symbol (pictured here) showing us that sustainable fishing practices were used. We should support sustainable fishing so that we can have more responsible fishermen and less bycatch. It is especially important to look for sustainably caught shrimp, since shrimp are often captured through trawling, a fishing method that involves dragging a big net from a boat. A great deal of bycatch is usually linked to trawling. We should also make an effort to buy seafood that is captured in U.S. waters, because it is controlled by strict U.S. fishing laws. Even better, try going "meat-free" one day per week to prevent climate change and reduce your overall impact on the environment!



Answer the questions below in your journal using *complete sentences*.

- 1. What is the difference between the populations of Eastern Pacific gray whales and North Atlantic right whales?
 - Eastern Pacific gray whales are doing well and their population is recovering. North Atlantic right whales are critically endangered. There are only about 400 of these whales remaining.
- 2. What is bycatch, and how can we help to prevent it?
 - Bycatch is when whales or other animals are accidentally entangled in fishing nets or gear. We can help to prevent bycatch by purchasing seafood that is captured in U.S. waters and labeled with the Marine Stewardship Council logo.
- 3. What are ghost nets?
 - Ghost nets are abandoned fishing nets that float through the ocean trapping other animals.
- 4. Why is it important to "consider a fish" before buying seafood?

 It is important to "consider a fish" because some fishing methods cause major harm to ocean ecosystems and result in a lot of bycatch.
- 5. What is the Marine Stewardship Council logo and why is it important?

 The Marine Stewardship Council logo identifies seafood that has been caught sustainably. It is important to support sustainable fishing so that we can have more responsible fishermen and less bycatch.
- 6. Why is trawling harmful to whales and the ocean?

 Trawling is harmful because a great deal of bycatch is usually linked to this fishing practice.