

## FIELD TRIP FOLLOW-UP ACTIVITY

### *Whale Watching Excursions*

To do after the field trip in class

1. **Students will read a paragraph to expand on topics introduced during their recent field trip.** The reading is available on the next page and online at [oceanconnectors.org/resources](http://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, **make copies of the handout or give students chart paper and have them work in groups to complete an informational table** (see next page).
3. After filling in the table, **students respond to review questions inside their journals** using complete sentences.
4. Please review the answers together in class.
5. This lesson covers 5<sup>th</sup> grade Common Core State Standards in ELA/Literacy, and Next Generation Science Standards 5-LS2-1, 5-ESS3-1, and 5-PS1-A.
6. **Project Based Extension: Have students work in groups to make a presentation** to inform an audience of public officials, students, investors, fishermen, natural resource managers, or the general public (choose one) about protecting whales.

Let students choose the format of their presentation from one of the following: PowerPoint, theater performance, movie, persuasive essay/letter, or news/radio broadcast.

To gather information for their presentation, encourage students to reach out to Ocean Connectors, NOAA, the San Diego Zoo, their local City/County office, and Scripps Institution of Oceanography.

## FIELD TRIP FOLLOW-UP ACTIVITY

### Whale Watching Excursions

Every species of marine mammal has its unique home, or *habitat*, within the vast world of ocean environments. These habitats provide food, shelter, and places to give birth that sustain the animals that live there. For migratory animals, home can cover an entire ocean, like the gray whale. On your whale watching field trip you took a boat out onto the Pacific Ocean, the gray whale's habitat. Other marine mammals stay in a small area all their lives. Whether living in a small or large area, each marine mammal is part of a unique *ecosystem*, a community of plants and animals and their environment, including the non-living elements such as sunlight, weather and water.

1. Copy the **Basic Needs** table below.
2. What types of things are needed in order for humans and gray whales to survive?
3. Make a list of these basic survival needs in each of the columns.
4. For each survival need that humans and whales have *in common*, draw a line between the columns connecting the needs.

#### HUMANS

#### WHALES

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#### Review Questions

1. Now that we know what whales need in order to survive, how can people help protect them?
2. How are the survival needs of humans similar to the survival needs of whales?
3. List three threats to whale survival, past or present.
4. On the next page in your journal draw a picture of a habitat for whales. Label what makes the habitat safe and suitable for whales, and be sure to include their prey.

# FIELD TRIP FOLLOW-UP ACTIVITY

## Whale Watching Excursions

### Answer Key

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1. Copy the **Basic Needs** table below.
2. What types of things are needed in order for humans and gray whales to survive?
3. Make a list of these basic survival needs in each of the columns.
4. For each survival need that humans and whales have *in common*, draw a line between the columns connecting the needs. **\*EVERY NEED LISTED IN THE TABLE CAN BE CONNECTED!**

### HUMANS

### WHALES

<ul style="list-style-type: none"> <li>• <b>Food:</b> More important than the food itself, people must receive proper nutrition. In many countries this is not possible due to food shortages (famine).</li> <li>• <b>Water:</b> People must have clean, sanitary freshwater to drink.</li> <li>• <b>Shelter:</b> We require protection from the elements (rain, snow, sun) via housing or another form of shelter.</li> <li>• <b>Space:</b> Humans require space in the terrestrial environment.</li> <li>• <b>Access:</b> Human needs must be available in an appropriate quality and quantity in order to be used. Thus, these components must be found in a suitable arrangement in order for a person to make use of them and survive.</li> <li>• <b>Sunlight:</b> The sun delivers vitamin D and supports agriculture.</li> <li>• <b>Soil:</b> Humans grow food and build their shelter on soil.</li> <li>• <b>Air:</b> As mammals, humans must breathe air to survive.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Food:</b> Gray whales are <i>benthic feeders</i> – they scoop up mud from the bottom of the ocean and use their baleen plates to filter out their invertebrate prey.</li> <li>• <b>Water:</b> The Pacific Ocean is the gray whale’s habitat, and they also must drink some water while feeding.</li> <li>• <b>Shelter:</b> Gray whales take shelter in coastal lagoons in Mexico to give birth after their long migration of around 6,000 miles from the Arctic.</li> <li>• <b>Space:</b> Whales and other aquatic organisms share the marine environment and its resources.</li> <li>• <b>Access:</b> Location and access to food and shelter are vital. Climate change is changing the arrangement of the Arctic by melting the ice. This melting is causing the ice to recede, which is lengthening the gray whale’s migration and impacting their food supply.</li> <li>• <b>Sunlight:</b> Sunlight maintains a healthy oceanic ecosystem by supporting photosynthesis in some types of plankton, seaweed, algae, and other plants.</li> <li>• <b>Soil:</b> Harbors the gray whale’s main prey, amphipods.</li> <li>• <b>Air:</b> Since all whales are mammals, they must breathe air at the ocean surface to survive. They have lungs, and therefore cannot breathe underwater like fish.</li> </ul>
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### Review Questions

1. Now that we know what whales need in order to survive, how can people help protect them?  
*People can help protect whales by ensuring their needs can be met. By keeping the oceans clean of pollution and trash, humans support the wellbeing of the entire ecosystem, including plants, invertebrates, whales, and other organisms. People should avoid littering, put careful thought into their seafood choices, exercise caution when using boats, and teach others about whale conservation.*
2. How are the survival needs of humans similar to the survival needs of whales?  
*Whales and humans have the same basic needs, but they are found in different forms, environments, and quantities. Our needs are not in conflict with one another, which means humans and whales can coexist.*
3. List three threats to whale survival, past or present.  
*Threats to whale survival include hunting (whaling), entanglements in fishing gear (bycatch), boat strikes, pollution (including trash as well as underwater noise), and climate change.*
4. On the next page in your journal draw a picture of a habitat for whales. Label what makes the habitat safe and suitable for whales, and be sure to include their prey.