

FIELD TRIP FOLLOW-UP ACTIVITY

Living Coast Discovery Center

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.

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 4th grade Common Core State Standards in ELA/Literacy and Next Generation Science Standards 4-LS1-1, 4-LS1-2, and 4-ESS2-1.
6. **Project Based Extension: Have students create a model out of recycled materials that answers the question: What is a sea turtle's life cycle?** Include nesting, migration, feeding, threats, and predators.

Display their models to mimic a “gallery” and have students walk around and offer written feedback using Post-It Notes. Feedback should be constructive and useful, such as the following:

- “I like...because...”
- “I wonder...”
- “I suggest...”

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Living Coast Discovery Center is located inside the Sweetwater Marsh National Wildlife Refuge. The Marsh is at the end of the Sweetwater River Watershed, which flows into San Diego Bay. A *watershed* is all of the creeks, streams, and storm drains that feed into a body of water. It is very important that we protect watersheds to keep our environment healthy. Sweetwater Marsh is home to over 150 native species of wildlife, many of which you saw on your Ocean Connectors field trip recently! A *native species* is a creature that is historically present in an area due to natural processes, not because of human intervention. Some of the native animals you saw at the Discovery Center, such as the green sea turtle, are classified as *endangered*. In fact, San Diego County has more rare and endangered species of plants and animals than any other county in the United States. This gives us a special opportunity to protect these species. However, with only 10% of coastal *wetland* habitats remaining in California today, and *climate change* causing sea level rise and temperature increases, we will have to work hard to ensure these animals can survive into the future. Animals must also *adapt*, or change to fit their surroundings, in order to survive. Birds have adaptations like different beaks and legs which help them catch their *prey*.

Think about your visit to Living Coast Discovery Center and Sweetwater Marsh while filling in the shaded columns in the table below. Next respond to the Reflection Questions in your journal using complete sentences.

	FISH	BIRD	REPTILE	MAMMAL
Animal Name <i>List the common name of one animal from your field trip in each column.</i>				
Observations <i>What do you remember about each animal and its habitat? What were the animal's colors? What was it doing in the habitat? Be detailed!</i>				
Conservation Status <i>Do you think this animal is classified as Endangered, Threatened, or No Threat? Write E, T, or N for each animal.</i>				

Review Questions

1. Pick one of the animals you listed in the table and describe one of its *adaptations* for survival.
2. In what *habitat* does this animal live? How might this habitat be impacted by *climate change*?
3. How can people help protect this animal, and its habitat?
4. On the next page in your journal draw a picture of the animal from Question 1 living inside its habitat. Label the ways in which this animal has adapted to survive in this habitat, and be sure to include its prey.

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Answer Key

Living Coast Discovery Center is located inside the Sweetwater Marsh National Wildlife Refuge. The Marsh is at the end of the Sweetwater River Watershed, which flows into San Diego Bay. A *watershed* is all of the creeks, streams, and storm drains that feed into a body of water. It is very important that we protect watersheds to keep our environment healthy. Sweetwater Marsh is home to over 150 native species of wildlife, many of which you saw on your Ocean Connectors field trip recently! A *native species* is a creature that is historically present in an area due to natural processes, not because of human intervention. Some of the native animals you saw at the Discovery Center, such as the green sea turtle, are classified as *endangered*. In fact, San Diego County has more rare and endangered species of plants and animals than any other county in the United States. This gives us a special opportunity to protect these species. However, with only 10% of coastal *wetland* habitats remaining in California today, and *climate change* causing sea level rise and temperature increases, we will have to work hard to ensure these animals can survive into the future. Animals must also *adapt*, or change to fit their surroundings, in order to survive. Birds have adaptations like different beaks and legs which help them catch their *prey*.

Think about your visit to Living Coast Discovery Center and Sweetwater Marsh while filling in the shaded columns in the table below. Next respond to the Reflection Questions in your journal using complete sentences.

	FISH	BIRD	REPTILE	MAMMAL
Animal Name <i>List the common name of one animal from your field trip in each column.</i>	mackerel, black smith, moray eel, leopard shark, sting ray, bat ray, sculpin, halibut, seahorse, sardine, garibaldi, trout, sturgeon, turbot, clown fish, tang, etc.	bald eagle, golden eagle, peregrine falcon, burrowing owl, great egret, snowy egret, night heron, clapper rail, barn owl, ibis, ruddy duck, mallard, kestrel, etc.	green sea turtle, loggerhead, rattlesnake, king snake, gopher snake, rosy boa, desert tortoise, horned lizard, glossy snake, chameleon, etc.	coyote, possum, human, etc.
Observations <i>What do you remember about each animal and its habitat? What were the animal's colors? What was it doing in the habitat? Be detailed!</i>				
Conservation Status <i>Do you think this animal is classified as Endangered, Threatened, or No Threat? Write E, T, or N for each animal.</i>	Visit the website iucnredlist.org in class to investigate the conservation status of each species. Enter each animal's name into the search field on the website to find out if it's being protected.			

Review Questions

- Pick one of the animals you listed in the table and describe one of its *adaptations* for survival. *Camouflage is a good example. Many animals also have adaptations for dealing with the high level of salt found in salt marshes and around the ocean. Some lizards lose their tails to protect against predators. Flatfish (like halibut) adapt to live on the ocean floor. Animals also adapt depending on the foods available.*
- In what *habitat* does this animal live? How might this habitat be impacted by *climate change*? *Besides Southern California or San Diego Bay, students can also specify Marsh, Wetland, Ocean, or Upland. Climate change is causing water and sand temperatures to increase and sea levels to rise.*
- How can people help protect this animal, and its habitat? *People can help by picking up litter from around the community and reducing how much trash they make.*
- On the next page in your journal draw a picture of the animal from Question 1 living inside its habitat. Label the ways in which this animal has adapted to survive in this habitat, and be sure to include its prey.