

# PLUGGED IN

A COOPERATIVE PROJECT OF THE SANTA BARBARA NEWS-PRESS AND THE EDUCATORS' ROUNDTABLE, PUBLISHED MONTHLY TO PROMOTE LEARNING AMONG YOUNG READERS IN NATURAL SCIENCE, HISTORY, TECHNOLOGY, AND ART

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## This Month's Theme: Gray Whales

### A Great Migration

The gray whale is probably the best known of the great whales of the northeastern Pacific. It is the most frequently seen species in and around the Channel Islands National Marine Sanctuary. After spending the summer and fall feeding in the plankton-rich waters of the Bering Sea, gray whales begin their southern migration between mid-November and mid-December. They swim along the North American coast, staying close to shore, until they reach their destination: Mexico.

Some gray whales continue on into the Sea of Cortés, but most spend their winters in the shallow waters and lagoons on the west coast of Baja California. It has long been believed that most gray whale offspring (calves) are born at this time. But more recent studies have shown that many calves are actually born during the southern migration, some as far north as southern Oregon! Some mothers (cows) with calves have been spotted passing south through the Santa Barbara Channel.

After the calves are born and fattened up for the cold northern waters, the gray whales begin their northward migration as early as mid-January. The migration occurs in two pulses, an early pulse when most of the population leaves, and a later smaller pulse of females and their calves. When they return to the Arctic Ocean, they have traveled approximately 10,000 miles!



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### What Do Gray Whales Eat?

Gray whales are baleen whales. Baleen is a comb-like structure made of the same material as your hair and nails and is attached to their jaws instead of teeth. Most baleen whales use baleen to strain out krill (small shrimp-like creatures) or fish out of large mouthfuls of seawater, but gray whales use theirs a bit differently. Instead of taking mouthfuls of water, gray whales dive down to the bottom of the ocean and scoop up large mouthfuls of sand! They use their baleen to capture **amphipods**, small shrimp-like creatures that burrow in the sediments on the ocean floor.



Amphipods are the favorite food of gray whales.

Courtesy of Justin Hoestery

### What Are These Whales Doing?



**Spouting** is what you see when a whale comes to the surface of the water and exhales. The "fountain" is really air and water vapor and can be 15 feet high.

This whale is **spyhopping**. Spyhopping is when the whale pushes itself vertically out of the water to examine its surroundings.

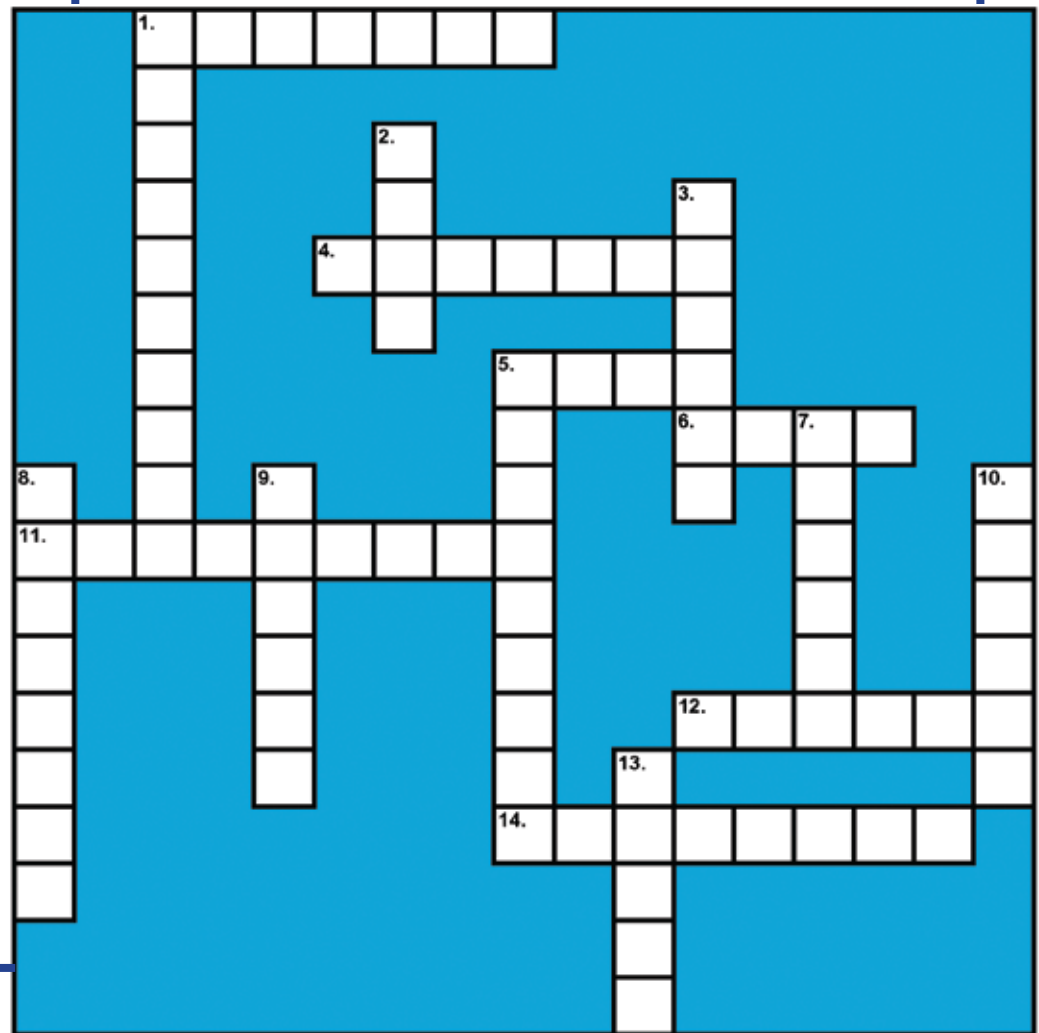
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### Now That's A Big Baby!

How are a gray whale and a cow similar? They both give birth to a calf! Gray whale calves are 15 feet long and weigh about 1,500 pounds at birth. They drink their mother's milk which is 53% fat, about 10 times more fat than cows milk, to build up blubber for their trip north. They also train for the long trip by swimming against the current in the shallow lagoons of Baja. Other female gray whales, known as aunts, help the mother when the calf is born.

### Gray Whale Crossword Puzzle

Match the clues with the correct word from the vocabulary list. The answers are below the Vocabulary List. If you need help, go to the library or online to: <http://www.slococ.org/resource/whale/>



#### Across Clues

1. Whaling captain
4. Pectoral fin
5. Winter home
6. Baby whale
11. 10,000-mile roundtrip
12. Mother's helper
14. Breathing

#### Down Clues

1. Head sticks out of water
2. It is 53% fat
3. Leap out of water
5. Attached to skin
7. Shallow water
8. Favorite food
9. Attached to jaw
10. Tails
13. Dive

#### Vocabulary List

Amphipod	Baleen	Flukes	Scammon
Auntie	Breach	Lagoon	Sound
Baja	Calf	Migration	Spouting
Barnacles	Flipper	Milk	Spyhopping


Answers Across: 1. Scammon, 2. Milk, 3. Breach, 4. Flipper, 5. Baja, 6. Calf, 7. Lagoon, 8. Amphipods, 9. Attached to skin, 10. Tails, 11. 10,000-mile roundtrip, 12. Mother's helper, 13. Dive, 14. Breathing.

### Spotlight On Research: Gray Whales Count

Did you know that gray whales are being studied in your own backyard? On the cliffs at Coal Oil Point Reserve, scientists and volunteers have been counting migrating gray whales in the Santa Barbara Channel for three years. In 2007, more than 70 volunteers counted 567 gray whales, 52 of which were calves! By sharing their data with other scientists along the west coast, the Gray Whales Count hopes to learn what route gray whales take as they migrate and why. Also, they can alert the scientific community when there is a change in the whale population. This was important in 2007 when they counted fewer than half as many calves as in 2006. Finally, keeping a yearly record of gray whale numbers can help scientists understand how the whales might be affected by natural and human impacts. To learn more about their research, go to <http://www.graywhalescount.org>. You can also find out how you can get involved!

*The Gray Whales Count is a joint research/education project of UCSB's Coal Oil Point Reserve, The American Cetacean Society-Channel Islands, Cascadia Research Collective in Washington, and the Marine Physical Laboratory of Scripps Institution of Oceanography at UCSD. Additional funding support is provided by UCSB's Coastal Fund.*

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Page by Dana Nakase, Marine Science Institute, and Shauna Bingham, Channel Islands National Marine Sanctuary.

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