

# Exploring Solutions to Animal Migration Problems

## Answer Key

Name \_\_\_\_\_

Date \_\_\_\_\_

After \_\_\_\_\_ reading the

*Wildlife Crossings*, *Fish Tale*, *The Gray Whale: Past, Present, and Future*, and the *Snake Migration* articles, use your notes and work with your group to organize your thoughts about the different solutions discussed in the articles.

Summarize the solutions covered in each of the articles below.

<u>Wildlife Crossings</u>	<u>Fish Tale</u>	<u>The Gray Whale: Past, Present, and Future</u>	<u>Snake Migration</u>
Possible response: Wildlife crossings, like bridges, overpasses, tunnels, viaducts, and culverts, are being built to keep migrating/moving animals from being hit by traffic and to keep their populations from being severed by roads. Some crossings are made to look like the natural habitat and have fences to keep animals moving in the right direction. Some crossings are tailored to one individual species, while others are meant to provide access for many different species.	Possible response: Fish ladders were constructed on most of the dams along the Columbia River, allowing adult salmon access upstream. To help the juvenile fish get downstream, the dams' turbines have been designed and paths have been created around the turbines. During salmon migration, dams spill water over the dam to create a flowing river. This helps the fish even though the dam generates less power. To help the salmon, people have also been scaring away, or killing, the sea lions that have learned to feed from the dams.	Possible response: Gray whales are protected by organizations and government agencies like the International Whaling Commission. Laws like the Marine Mammal Protection Act and the Endangered Species Act also protect the whales. Mexico created a protected area for the whales while they nurse. Some populations of protected whales rebounded, however, other populations that are still hunted remain at critically low numbers.	Possible response: To prevent snakes and other animals migrating from the swamp to the hills (or vice versa) from getting hit by traffic, LaRue Road is closed to cars during the migration season.

List at least four stakeholders (people with an interest or concern in something or one who is involved in or affected by a course of action) in each of the human impacts and solutions covered in the articles.

Wildlife Crossings	Fish Tale	The Gray Whale: Past, Present and Future	Snake Migration
Drivers, hospitals, people who care about the well-being of wildlife, animals, highway/road designers, governments, national park officials, construction companies	Residents of the Pacific Northwest that get electricity from the dams, barge/boat users/owners who use the waterways, hunters, environmental organizations like Sierra Club, salmon, indigenous communities, governments, Bonneville Power Administration, sea lions, National Marine Fisheries Service, U.S. Army Corps of Engineers, National Oceanic and Atmospheric Administration, community members, people who eat salmon, companies and restaurants that sell salmon	Whale-watching companies, American Cetacean Society, illegal whale hunters, the International Whaling Commission, governments, indigenous peoples	Shawnee National Forest, scientists, snake and reptile species, Forest Service, Department of Natural Resources, national forest visitors, hunters, area residents, snake enthusiasts, herpetoculturists, undercover conservation law investigators

List several pros and cons of each of the solutions.

	Wildlife Crossings	Fish Tale	The Gray Whale: Past, Present, and Future	Snake Migration
Pros	Safer roads and protection for migrating and local wildlife	Saving fish and an important food source for humans and other species	Saving whales from extinction	Saving snakes and other animals
Cons	Costly and time-intensive	Cost, less power generation during migration periods, impacts other organisms like sea lions	There aren't many cons, although those who want to hunt whales would be limited	Inconvenience of closed roads

## Similarities and Differences

Using a graph of your choice, compare and contrast the different solutions that we have covered today. Feel free to include some of the solutions to the wind turbine problem as well.