

# Southern Resident Orcas Activity Book

WHALE AND DOLPHIN CONSERVATION

# **ABOUT ORCAS**

**Orcas**, or "killer whales," are actually a type of **dolphin**, the largest in the world! Did you know that all whales are mammals, just like us? Whales are part of a group known as **marine** mammals, which means they live in the ocean. A thick layer of fat called **blubber** helps keep orcas warm in cold water. The tall dorsal fin on their back helps them steer and regulate their body temperature. Toothed whales, including orcas, have an organ called a melon in their heads. which scientists think is used in echolocation.



What's echolocation? A type of biosonar. Some whales and dolphins use sound, producing clicks and listening for the echo to locate objects and navigate underwater.



YOU ARE WHAT YOU FAT? OTHER TYPES OF ORCAS EAT SHARKS, SEALS, STINGRAYS, OR EVEN PENGUINS.

## SOUTHERN RESIDENT ORCAS

A unique community of orcas known as the "Southern Residents" live in the Pacific Ocean off the West Coast of the United States and Canada. They are **endangered**, which means they are in danger of becoming extinct, or gone forever. The Southern Residents live in the Salish Sea and the **coastal** waters of Washington, Oregon, and California. They are called **Resident** because they are a type of orca that only eats fish, staying in one area for a long time to forage on abundant sources of food. Southern Residents prefer Chinook Salmon, the largest and fattiest type of salmon, but many Chinook populations are also endangered.

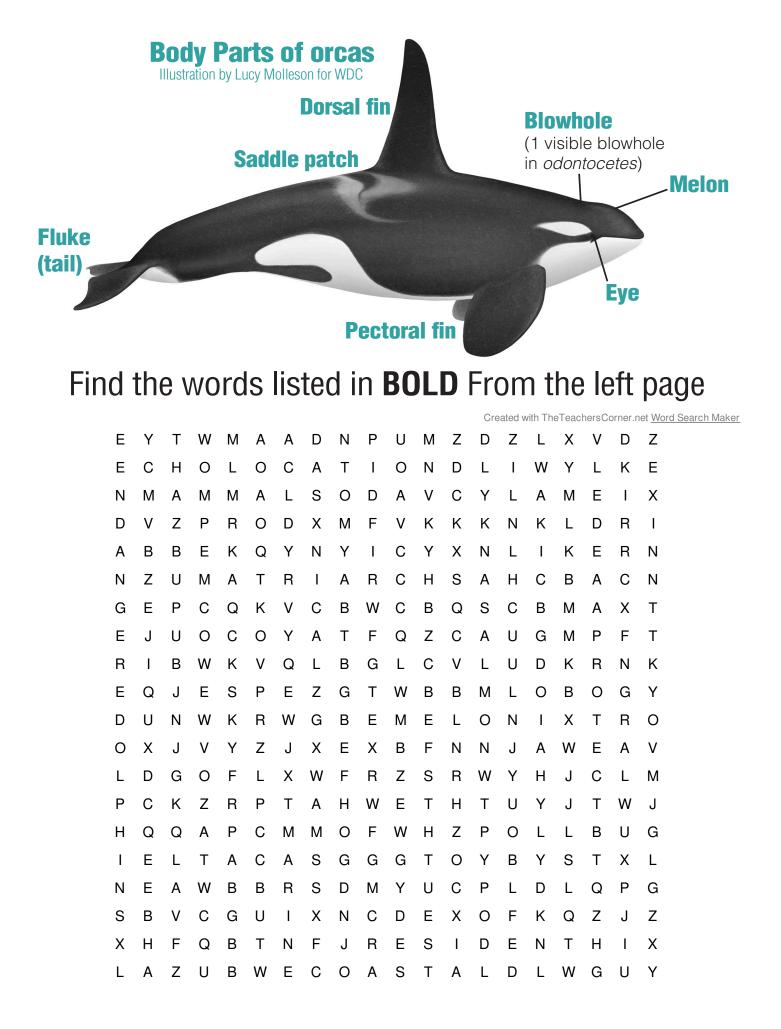
## **ORCA FAMILIES**

The Southern Resident orcas live in family groups called **pods**, which are usually related through their mothers and grandmothers. Resident orcas stay with their mothers' groups for their entire lives. The older females in a pod are known as matriarchs, which means they are the leaders and are responsible for keeping their families together and safe. They teach the young orcas what to eat and how to find food. Young orcas learn about the culture of their family from their elders, even how to communicate using the **dialect** of their family – a unique set of calls passed down through generations by vocal learning. Today, fewer than 80 Southern Resident orcas remain, and if we don't **protect** them, they could disappear forever.

THE OLDEST SOUTHERN RESIDENT ORCA, GRANNY, LIVED TO BE ABOUT 105 YEARS OLD

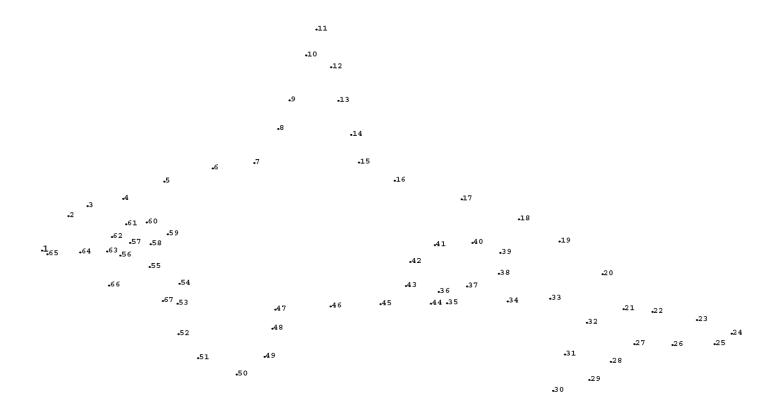


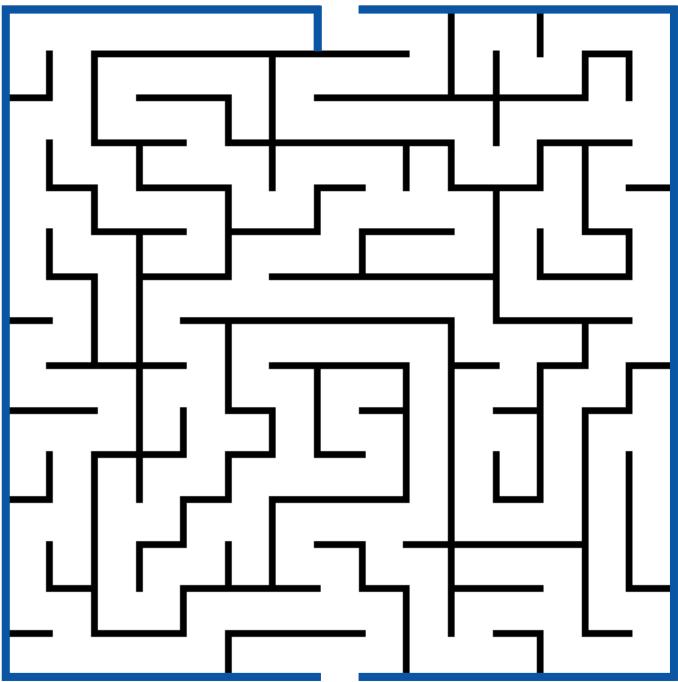
**SOUTHERN RESIDENT ORCAS** LIVE IN THE COASTAL WATERS BETWEEN MONTEREY. CALIFORNIA AND SOUTHERN BRITISH COLUMBIA, CANADA





The Southern Residents need to have enough food to survive and thrive. Because they prefer Chinook salmon, what helps the salmon also helps the orcas. Salmon need healthy rivers to survive. If we restore rivers on the west coast, we'll give the salmon AND orcas healthy environments in which to live.





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CRITICAL HABITAT PROTECTS THE FEATURES OF AN ECOSYSTEM ESSENTIAL FOR SURVIVAL Orcas in the Pacific Northwest are divided into three distinct groups (called ecotypes) based on their diet, culture, and social organization. The ranges for these groups of orcas can overlap, but the different ecotypes rarely interact.

Resident orcas eat fish, mostly salmon, and have favored home ranges. Bigg's (also known as transient) orcas travel longer distances and eat other marine mammals. Offshore orcas are the smallest of the three ecotypes, live farther away from the coast, and most likely eat sharks and fish.

The Southern Resident orcas' preferred food is Chinook salmon. The Columbia-Snake River system in the U.S. and the Fraser River in Canada used to have the largest numbers of Chinook salmon in North America, but salmon populations have declined dramatically for a number of reasons, including overfishing, climate change, and habitat loss from dams and other human-caused barriers in rivers and estuaries. Many Chinook populations are also listed as endangered. The Southern Residents rely on salmon from other big river systems in Washington, Oregon, and California, including the Chehalis, Klamath, and Central Valley Rivers.

Removing or breaching old, obsolete dams on the Klamath and Snake Rivers is one of the best potential ways to restore these rivers and the salmon that live there. Many of these endangered salmon are sensitive to warm water temperatures caused by dams and climate change. Reservoirs created by dams can also increase pollution in the surrounding habitat.

The survival of the Southern Resident orcas is closely linked to the availability of their favorite food, and without restored rivers and abundant salmon, we could lose the Southern Residents forever.



THE **SOUTHERN RESIDENT ORCAS** ARE A DISTINCT COMMUNITY DIFFERENT FROM ALL OTHER ORCAS IN THE WORLD

# RESTORING RIVERS

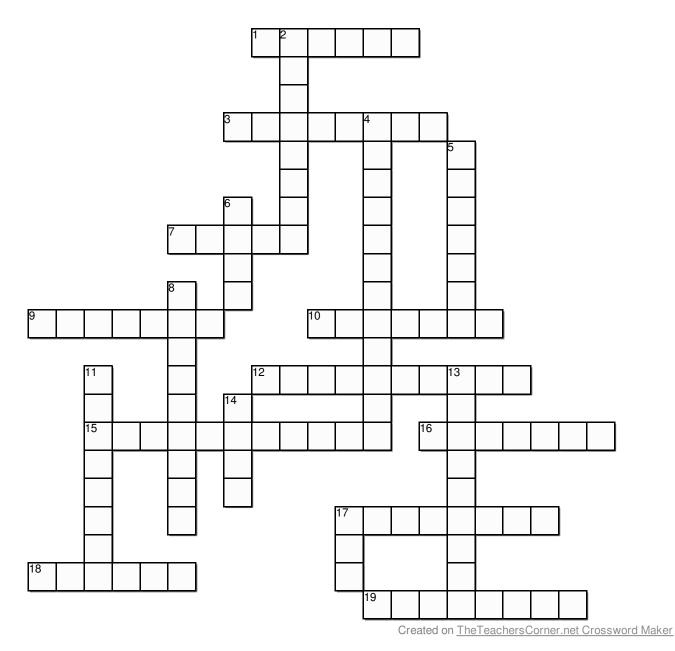
HELPS RECOVER SALMON POPULATIONS IN THE RANGE OF THE ORCAS

## ORCA CROSSWORD PUZZLE

All the answers can be found in the information about orcas in this activity book use what you've learned to fill in the words!

#### ACROSS

- 1. The \_\_\_\_\_ Fin helps orcas steer and regulate body temperature.
- 3. This group of orcas mostly eats salmon.
- 7. A river where Chinook salmon return to spawn that has been blocked by dams.
- 9. This type of salmon is the preferred food of Southern Resident orcas.
- 10. A California river where dam removal could help salmon populations.
- 12. Southern Residents could be found off the coasts of Oregon, California, and \_\_\_\_\_\_.
- 15. River \_\_\_\_\_\_ means that the rivers will return to a healthier state.
- 16. The ocean where Resident, Bigg's, and Offshore ecotypes are found.
- 17. Two reasons that salmon populations have \_\_\_\_\_\_ are overfishing and habitat loss.
- 18. Southern Residents spend most of their time during the summer in the \_\_\_\_\_ Sea.
- 19. Orcas in the Pacific Ocean are broken up into groups based on what they eat and their social groups called \_\_\_\_\_.



### DOWN

- 2. This Pacific Northwest orca ecotype is on average the smallest.
- 4. Toothed whales can use sound to locate objects using \_\_\_\_\_

5. If we don't do anything to help protect our endangered Southern Resident orcas and Chinook salmon they are at risk to go \_\_\_\_\_\_ (disappear forever).

- 6. Dams can make the water temperature too \_\_\_\_\_ for the salmon to survive.
- 8. Another man-made threat to the waters used by Southern Resident orcas is \_\_\_\_\_.
- 11. Removing the dams would increase the chances of \_\_\_\_\_\_ for both salmon and orcas.
- 13. Other marine mammals are the main food source for this group of orcas.
- 14. Predators hunt and eat \_\_\_\_\_ to survive.
- 17. A wall built across a river is called a \_\_\_\_.

The Jessica Rekos Fellowship for Orca Conservation is made possible by the generosity of The Jessica Rekos Foundation in honor of Jessica, who devoted her short time on this planet to "researching" whales and learning as much as she could about them. Orcas were her favorite. Jessica was only six years old when her life was tragically taken during the shooting at Sandy Hook Elementary School in Newtown, Connecticut on December 14, 2012.

WDC is honored to be entrusted with Jessica's legacy ensuring that wild orcas are protected for generations to come.



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