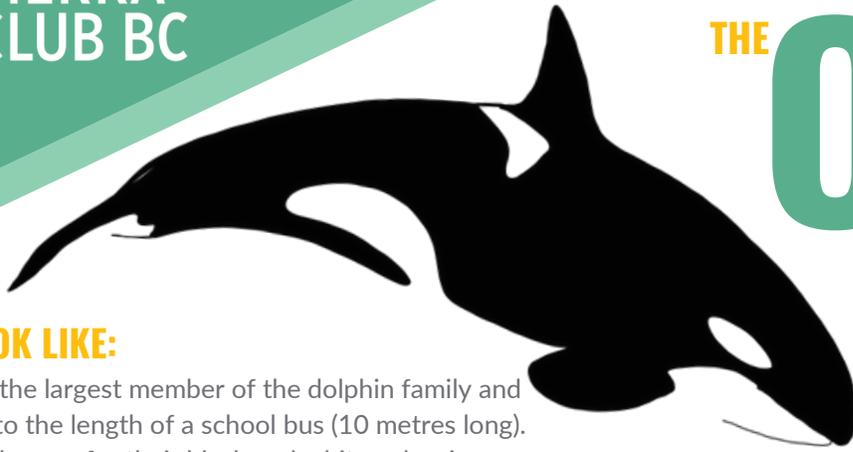


HELP PROTECT TRANSIENT AND RESIDENT THE ORCA

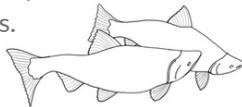


Suggested age range: Grades 3-8

Illustrations by Amira Maddison

WHAT I LOOK LIKE:

- Orcas are the largest member of the dolphin family and can grow to the length of a school bus (10 metres long).
- Orcas are known for their black and white colouring. They have a large dorsal (back) fin that can be up to 2m tall. Males have a taller, straighter dorsal fin than females, who have a more curved dorsal fin. People can tell individual orca whales apart from each other using specific markings like scars or nicks in the dorsal fin.
- Each whale has a one-of-a-kind white patch around the base of its dorsal fin, a white belly and a white patch behind its eye.
- There are 10 different orca **ecotypes** around the world. An ecotype is a distinct type of a plant or animal species that lives in a particular habitat. One way to identify different orca ecotypes is by the shape of the white patch above their eyes.
- Young orcas are born with an orange tint that eventually turns white. When they are born, they already weigh about 150kg!
- Orcas have big tails and a row of cone-shaped teeth along the top and bottom of their mouths.



WHAT I EAT:

- The resident orcas that live off the coast of B.C. rely on salmon (chinook, coho, chum) and sometimes other fish (lingcod, halibut) as their main source of food. Negative human impacts on salmon populations means that orcas are at risk of not having enough food!
- Transient orcas, that travel from Mexico to Alaska, rely on other marine mammals, such as seals, for food.
- Offshore orcas, which are found 10 miles or more from shore from Alaska to California, eat so much shark that their teeth get worn to the gums from chewing their prey's sandpaper skin!
- Orcas use **echolocation** to find their food. This means that orcas make high pitch sounds, which reflect off their prey, telling the orcas where the prey are. They also use echolocation to navigate through the ocean! Bats, other dolphins and whales and some birds are other beings that use echolocation to hunt, communicate and navigate. Check out the Echolocation Camouflage game on page 3 to learn more! Listen to Southern Resident Orcas communicating here: <https://www.cbc.ca/player/play/1576060995596>

WHAT MY COMMUNITY LOOKS LIKE:

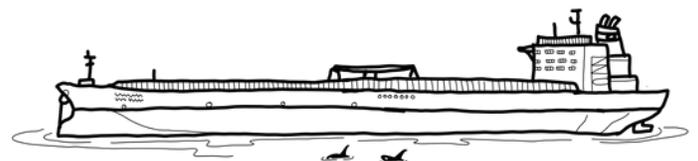
- Orcas live in tight-knit **matrilineal** groups. This means the pods are led by older females that model specific behaviours to younger animals.
- A mother resident orca—a 7,000-pound giant—will hold a salmon in her mouth while her calf chews on it. This is how the group's preference for chinook may be transmitted to the next generations.
- Some resident orca in British Columbia frequent “rubbing beaches” where they scrape along pebbly rocks for a good scratch! Check out this live stream from Harrison Island, B.C. to see what the Northern Resident orcas are up to: <https://explore.org/livecams/orcas/orcalab-rubbing-beach-underwater>

HOW I GROW:

- Orcas live in family groups called “pods” which are made up of six to 20 whales.
- Females give birth when they are about 15 years old and only have a few babies in their lifetime (which lasts 30 to 70 years).

WHAT EATS ME:

- Orcas are **apex predators**. This means they have no natural predators. However, for many years, humans have hunted orcas as a food source.
- The main threats to orcas come from diet and habitat degradation caused by human impacts. For example, they are sensitive to noise and pollution from boats, and they have a very high level of pollution in their bodies from eating poisoned fish and swimming near oil spills and sewage pipes.
- Humans have been capturing orcas for many decades to be entertainment for people in aquariums and marine centres. Once they are captured, orcas tend to spend the rest of their life confined to a tank, separated from their pod members and their amazing ocean habitat.



WHERE DO I LIVE?

Orca whales can be found in almost every ocean in the world!

Here in B.C., there are two resident pods and two transient (travelling) group of whales:

Offshore Orcas: spend most of their time far from the shore and rarely come close to shore.

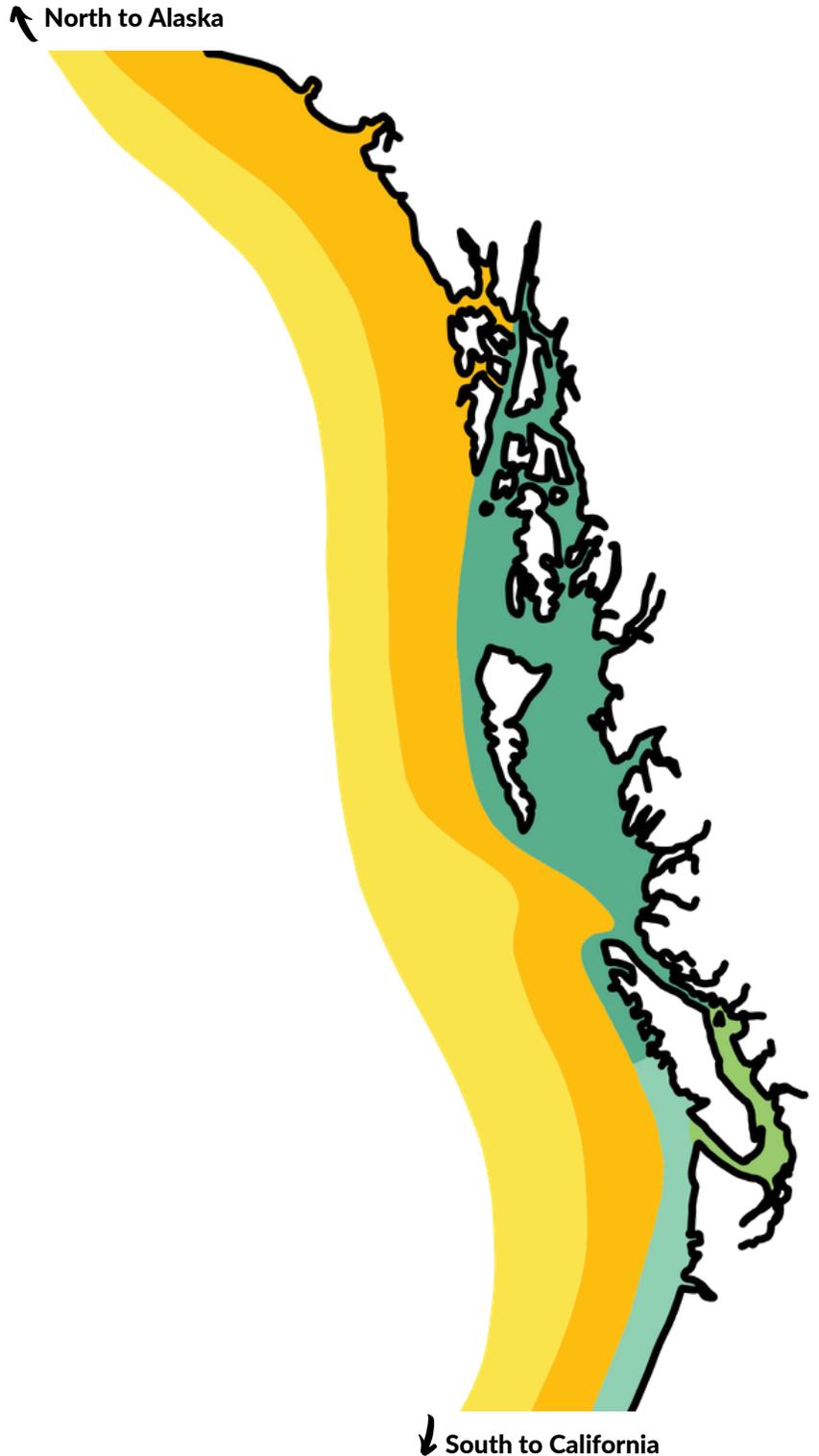
Transient (Bigg's) Orcas: Swim from California and Mexico up to Alaska

Northern Resident Pod Fall and Winter Range: Mid-Vancouver Island to Haida Gwaii to Southern Alaska

Southern Resident Pod Fall and Winter Range: Along the coast of BC, Washington and Oregon

Resident Orca Summer Range: In the Salish Sea

Draw a transient or resident orca and it's food here:



ORCA ECHOLOCATION CAMOUFLAGE

Prep Time: None

Hours of Entertainment: Endless

Energy Expended by Child: Moderate

What you'll need: A small area with lots of places to hide or duck behind. Trees, rocks, logs, bushes, sofas, and tables all work. Five or more participants.

HOW TO PLAY

- Orcas have highly developed echolocation abilities. They make clicks, whistles and pulsed calls to help them hunt, communicate and find their way in dark waters. Invite participants to practice making echolocation sounds and then practice copying someone's echolocation sounds!
- Go over your boundaries of the playing area for the game. This area is your ocean!
- Draw a small circle in the dirt in the middle of your playing area. Pick one person to be "it". This person is the **Orca**. The Orca can't leave the circle. All the other players are **salmon** in the ocean.
- The Orca closes their eyes, and says, "swim for 20 seconds" and begins counting for 20 seconds. All other players (the salmon) run off and try to camouflage and hide. When the Orca reaches zero, they can open their eyes and, without leaving the circle, tries to spot the hiders (salmon), calling them out by name or the colour of their clothing. Anyone caught is out.
- When the Orca can't find anyone else, they can call out a few tricks to find the salmon:
 1. The Orca calls "**ECHOLOCATION!**" The Orca then chooses a noise to make (like clicking your tongue or snapping your fingers). All salmon must repeat the sound loud enough for the Orca to hear. See if this helps the Orca locate the salmon!
 2. If the Orca still can't find the salmon, the Orca closes their eyes, and calls, "swimming salmon for 15 seconds!", while they stick their hands out to their sides and count down from 15. All the salmon must run from their hiding place, tag the orca, and quickly hide again. When the orca hits zero, they open their eyes and again try to spot the hiders.

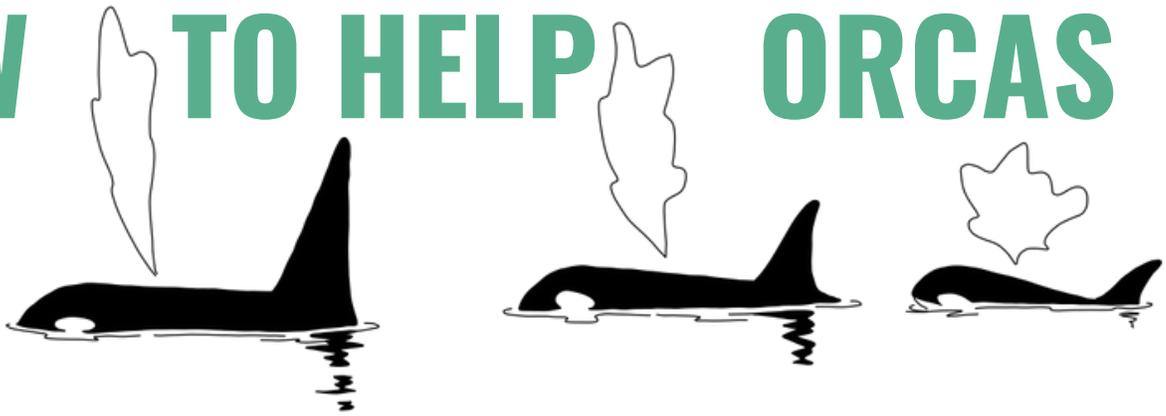


- The game continues like this with the Orca calling "Echolocation" with a different noise and "Swimming Salmon" for less time (10 seconds or 5 seconds) until there is only one person left. This person becomes the next Orca.

DID YOU KNOW?

Orca **spotting** or a "**spyhop**" is when an orca bobs into the air to get a better look at the above-water world.

HOW TO HELP ORCAS



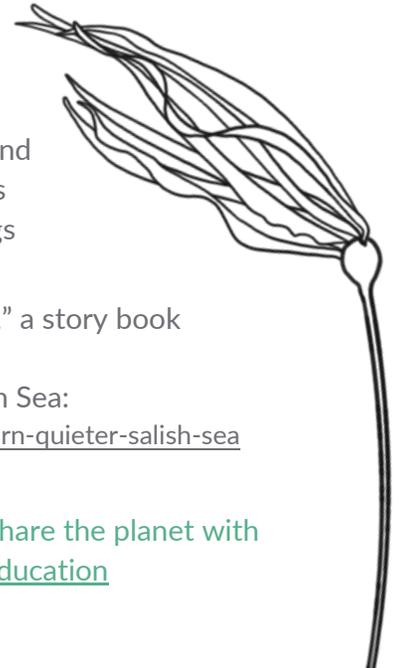
Indigenous peoples and orcas have lived in harmony in the Pacific Northwest since time immemorial. It is important to look to Indigenous communities for knowledge and understanding of the history, location, and behaviours of the Pacific Northwest's orca populations, as well as to their leadership, when developing protection and recovery actions.

Learn to say 'Killer Whale' in Kwak'waka, a Wakashan language from the Northwest Coast:
Max'inux : Killer Whale

Listen to Indigenous artist Roy Henry Vickers tell the story of the Orca Chief:
<https://www.cbc.ca/player/play/2666841260>

WHAT YOU CAN DO TO HELP ORCAS THRIVE:

- If your family eats fish, ask your parents where the seafood they buy is from. For example, farmed salmon can be extremely harmful to orcas and the ocean community as a whole. Disease can quickly develop in salmon farms and fish that escape from farms could cause catastrophic effects for wild salmon populations. Ask your family if they can buy fish from local people who fish with care.
- Do some research online to learn about the history of orcas that were captured from this part of the world and sent to aquariums and marine centres.
- Always dispose of your trash responsibly, and encourage the people around you to do the same. If we make an effort to dispose of trash carefully, it is much less likely that it will end up in ocean. This is especially true of things that end up in your drain, which may lead directly to rivers and oceans!
- Check out "Orcas Everywhere: The Mystery and History of Killer Whales," a story book written by Saanich author Mark Leiren-Young.
- Read this good news story about the southern resident Orcas in the Salish Sea:
<https://www.oceannetworks.ca/endangered-southern-resident-killer-whales-return-quieter-salish-sea>



Find more activities and resources about the beautiful beings we share the planet with (and about our school programs!) at: sierraclub.bc.ca/education