



# OVERVIEW - THE ARCTIC & OUR IMPACT OCEAN WISE DISCOVERY KIT

## Land Acknowledgment

We acknowledge and are grateful that many Ocean Wise employees work and play on the traditional, ancestral and unceded territories of the x<sup>w</sup>məθk<sup>w</sup>əyəm (Musqueam), Skwxwú7mesh (Squamish), and səliiwətaʔt (Tsleil-Waututh) peoples.

## Overview

Thank you for taking the opportunity to explore the Ocean Wise the Arctic and Our Impact Discovery Kit. We have built this kit to incorporate big ideas and learning standards from the British Columbia curriculum with a focus on the sciences.

The Arctic kit includes hands on artifacts, lessons for the classroom, discussion questions, keywords, and additional ideas for activities and ways to engage your class and plant the seed for ocean conservation in the next generation. Included in the kit is a link to a [Google Drive folder](#) that also features virtual versions of all these resources for ease of use and printing. In addition to the hands-on artifacts, we have included a full lesson plan that incorporates many of these artifacts in the kit and can easily be modified to fit its audience. Activity sheets, word searches and additional discussion questions to extend the lessons are also included. Within the lesson plans we have also included rubrics with each grade's big ideas and learning competencies to make it easier for teachers to incorporate the kits within their classroom.

We hope you enjoy using the elements of this kit and please use and modify them to best suit your classroom. Also included in the kit is a feedback form, we are always trying to improve and would appreciate your feedback greatly.

Recommended Grade Level: 1-8

Expected Duration: 1-2 Days

## Before You Get Started

- Connecting resources are designed for teacher use and accessed digitally via a shared Google Drive link.
- Pages that require printing or projecting can be found in the "Images" folder in the shared Google Drive.
- The artifacts and accompanying resources included in this kit are for your use however you see fit and in any order.
- Please ensure you return all items back into the kit. See the "How to Pack" document for packing instructions.




## Artifacts Included in this Kit

- Polar Bear Skull
- Harbour Seal Skull
- Microplastic Sample
- Sila and the Land (Book)
- The Inuit Thought of It (Book)
- Food Web Cord

## Artifacts Included – Ocean Wise Arctic Discovery Kit

	<p><b>Polar Bear Skull (Replica)</b></p> <p>Polar Bears can swim for days at a time to find food. Due to melting sea ice polar bears spend increased time swimming to find food. They prey upon ringed seals and bearded seals. These seals are also known as “ice seals” (see below).</p> <p>Note the polar bear’s teeth – large canine teeth for ripping and tearing.</p> <p>Polar Bears can smell a seal from up to 32 kilometres away, they can even smell a seal that is three feet under the ice from 1km away.</p>
	<p><b>Harbour Seal Skull (Replica)</b></p> <p>There are six species of seal in the Arctic – Harp, Ringed, Ribbon, Bearded, Hooded, and Spotted seals.</p> <p>Ringed and bearded seals are also known as “ice seals” as they need ice for giving birth, nursing their young, resting and for finding prey.</p> <p>Seals can hold their breath for up to 30 minutes!</p> <p>Seals have a thick layer of special fat called ‘blubber’ that keeps them warm.</p>
	<p><b>Microplastic Sample</b></p> <p>This is a sample of plastics which was collected from a beach in Vancouver, BC.</p> <p>When plastics are exposed to light, they break down into smaller and smaller pieces. This also happens to plastics in the ocean, where they become ‘microplastics’ (plastics that are between 1 micrometre and 5mm in size).</p>



	<p>These tiny pieces of plastic can be eaten by sea animals and move up the food chain to larger animals.</p>
	<p><b>Food Web Cord (colour may vary by kit)</b></p> <p>The Arctic food web depends on algae growing on the bottom of the sea ice. Arctic cod are a link between the lower and upper trophic levels.</p> <p>Scientists are researching the effects warm water fish such as capelin and Pacific sand lance moving north have on the food web.</p>