



Making a difference...together

FEELING CRABBY

Educators Guide

Program at a Glance

This program fosters curiosity and a sense of wonder about the changing seashore environment and the homes it provides for many creatures. Through engaging activities and respectful hands-on discovery, students discover why crabs are well adapted to their ocean home. Starting with a fun dress up, we will introduce children to crabs, pointing out distinguishing features and behaviors that allow them to survive in their environment. In smaller groups, we will explore tide pools and under rocks, and discover fascinating intertidal life. To complete the program, all the students will join and sing the “Crabby Song”. Respectful treatment of seashore creatures and their habitat will be demonstrated and children will be encouraged to think of the seashore and its inhabitants as a community with needs similar to our own.



In this program, students will:

- Observe and enjoy the park and its adjacent beach
- Identify the features of the amazing crabs that live on the seashore
- Explore the seashore and see how it provides the basic needs for crabs
- Discover the unique role of crabs in the marine environment
- Evaluate the impact of our actions on crabs and the seashore environment

Curriculum Connections

Our place based school programs directly relate to the K-5 science curricula. Below you will find some big ideas, curricular competencies and content that will be addressed on your program.

Big Ideas from BC Curriculum:

- Plants and animals have observable features (K)
- Daily and seasonal changes affect all living things (K)
- Living things have features and behaviors that help them survive in their environment (Grade 1)

Curricular Competencies from BC Curriculum:

- Demonstrate curiosity and sense of wonder about the world
- Make exploratory observations using their senses
- Experience and interpret the local environment
- Discuss observations
- Identify simple patterns and connections
- Consider environmental consequences of their actions
- Share observations and ideas orally and in role-play
- Express and reflect on personal experiences of place

Content from BC Curriculum:

- Identify the basic needs of plants and animals (K)
- Understand changes that some forest animals have to make to accommodate seasonal cycles (K)
- Adaptations of local plants and animals (K)
- Structural features of living things in local environment (Grade1)
- Behavioral adaptations (Grade 1)
- Names of local plants and animals (Grade1)

Suggested Pre-Trip Activities

- On the classroom bulletin board have students draw pictures on the field trip topic or write predictions about what they might see.
- Create a K-W-L chart (what I know, what I want to know, and what I learned) for crabs, and fill out the first two categories.
- Show photographs of some of Vancouver Island's local crustaceans, such as shore crabs, hermit crabs, shrimp, and barnacle
- Read stories in class about crabs.
- Have a sharing circle to talk about how the students feel about crabs and what they know or may have heard about them.

Follow-up Activities

- Have students return to the class bulletin board to make changes in their drawings or predictions based on their new knowledge gained from the field trip.
- Revisit the K-W-L chart and fill in the "L" (What I learned).

- Draw food chains and webs involving crabs or their relatives (e.g. algae - crab - seagull).
- Discuss how crabs bodies are different from human bodies. What role does each body part play in helping the crab survive? How is the crab especially well adapted to live at the seashore? Have students think of ways their bodies would have to change before they could survive in a crab's environment.
- Have crab walk races.

Background Information on Crabs

Of all the creatures found at the beach, crabs are the ones that often generate the most excitement among children exploring the intertidal zone. They are, as a result, one of the intertidal animals most at risk of harm through mishandling or removal from their natural environment. In this program, children will have an opportunity to search for and handle these exciting creatures and some of their relatives. They will also learn more about their structure and lifestyles. Through play and exploration, students will be taught to handle crabs properly and to treat these animals and their homes with care and respect.

Crabs belong to a class of organisms called Crustaceans. Crustaceans are a group of mostly aquatic animals that have hard outer shells and jointed appendages. This class includes crabs, barnacles, shrimp and their relatives. Wood bugs, commonly found under rocks and in moist soils, are a type of terrestrial crustacean. All crustaceans belong to the phylum Arthropoda (which means, "jointed foot"). This phylum also includes such animals as insects and spiders.

Many different types of crabs live in the waters off our Vancouver Island coastline. In this program we will focus on the common and abundant shore crabs found under rocks, and hermit crabs found in shallow tide pools along the shore. We will also examine some of their relatives, such as barnacles and beach fleas (beach hoppers).

Crabs, like all other organisms, play vital roles in the ecology of our oceans. Crabs are scavengers that help to clean up waste materials from the seashore, much like slugs do in our forest environment. Crabs are an essential link in the food chain and contribute to the overall health of our oceans.

Online Resources

Capital Regional District

Information about local crab species

<https://www.crd.bc.ca/education/our-environment/wildlife-plants/marine-species/crabs>

NatureWatch

NatureWatch is a community that engages all Canadians in collecting scientific information on nature to understand our changing environment. Find out how you can be a citizen scientist in your local area.

<https://www.naturewatch.ca/>

Additional Resources

Some useful field guides to our local marine environments include:

Harbo, Rick M. *Whelks to Whales: Coastal Marine Life of the Pacific Northwest*. Harbour Publishing, 2011.

Sept, Duane J. *The Beachcomber's Guide to Seashore Life in the Pacific Northwest*. Harbour Publishing, Revised Edition 2009.

Sheldon, Ian. *Seashore of British Columbia*. Lone Pine Publishing, 1998.

Snively, Gloria. *Exploring the Seashore in British Columbia, Washington and Oregon. A Guide to Shorebirds and Intertidal Plants and Animals*. Vancouver: Gordon Soules Book Publishers, 2003.

Coulombe, Deborah A. *The Seaside Naturalist*. Touchstone Press, 1990.

Kingfisher Press, based out of Sooke, BC, produces recommended marine education resources for teachers. <http://www.kingfisherpress.ca/index.html>

Student references and storybooks:

Carle, Eric. *A House for Hermit Crab*. Aladdin Publications, 2002.

Coombs, Kate. *Water Sings Blue: Ocean Poems*. San Francisco: Chronicle Books, 2012.

Earhart, Kristin. *The Magic School Bus Gets Crabby*. Scholastic, 2006.

Lewis, Paul O. *Grasper: A Young Crab's Discovery*. Vancouver: Whitecap Books, 1993.

McDonald, Megan. *Is This a House for a Hermit Crab?* New York: Orchard Books, 1990.

McFarlane, Sheryl. *Moonsnail Song*. Victoria: Orca Book Publishers, 1994.

Sayre, April Pulley and Sayre, Jeff. *One is a Snail, Ten is a Crab: A Counting by Feet Book*. Candlewick Press, 2006.