

How can we protect and preserve our planet?

Students explore how the Great Bear Rainforest is preserved and ways to protect endangered species and wilderness and marine areas in other parts of British Columbia.

Learning Intentions

1. How can we protect endangered species at risk of going extinct?
2. What strategies can be used to protect and preserve wilderness and marine areas?
3. How is the Great Bear Rainforest being conserved?
4. What challenges do salmon face?
5. How is the Great Bear Rainforest being affected by climate change?
6. Why protect the Spirit Bear?

Blackline Masters

- Learning intention 1: *Endangered Animal*
- Learning intention 2: *Protest Signs*
- Learning intention 3: *News Article*
- Learning intention 3: *Self-assessment for Groupwork*

Curricular Connections

Refer to the “Curriculum” drop-down option under the “Learn” tab of the Great Bear Rainforest Education and Awareness website.

Curriculum Alignment: Great Bear Rainforest Education and Awareness Trust

<https://greatbearrainforesttrust.org/curriculum/>

Learning Intention 1

How can we protect endangered species at risk of going extinct?

Experiences and Observations

- Ask students: What defines a species? (A group of organisms that can produce offspring.) What does it mean when a species is endangered? Extinct?
- Have them research: What species are endangered in B.C.? In Canada?
- People tend to feel more empathy when they develop relationships. Using the blackline master *Endangered Animal*, have each student choose an endangered animal from B.C. (or Canada) and do a report on it then share out with the class or in small groups.
- Outdoor connection: going outside to notice and count the ways that humans have negatively or positively impacted the space around them.
- Questions: How do we interact with the land? What is our impact? How can we protect and give back? Have class or small group discussion and record main topics on chart or whiteboard (topics such as relationship, responsibilities, reciprocity or what the land gives us and what we give back, global warming, industrial waste, sustainability, conservation and so forth).
- View Big House Dreams:

Big House Dreams (2:16)

<https://www.youtube.com/watch?v=6LSkRF-Pwo4>

- Students create a poem, art piece, wordle or some expression of their relationship and interaction with their local lands.

Possible Topics/Key Vocabulary

- Species
- Endangered animals
- Extinct/extinction
- Positive and negative interactions and impacts on environment
- Empathy

Reflections on Learning

- Black line master: *Endangered Animal*
- Creative expressions: For example, art, poem, wordle

Suggested Resources

David Suzuki Foundation

<https://davidsuzuki.org/project/species-at-risk/>

“The Environmental Movement”

Canadian Encyclopedia entry.

<https://www.thecanadianencyclopedia.ca/en/timeline/environment>

World Wildlife Fund Canada website

<https://wwf.ca/wildlife/>

Nature Canada website

<https://naturecanada.ca/discover-nature/endangered-species/>

Extension

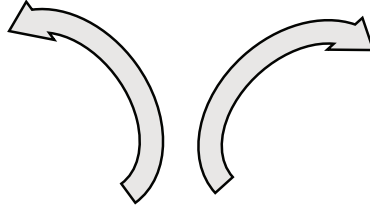
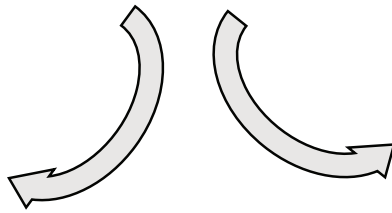
- Investigate the [Species at Risk Act](#). Summarize the main points and determine as a group if this Act works towards saving endangered species. What would you change about the Act?

Endangered Animal

Report by: _____

What animal did I choose?

What species is the animal?



What does the _____ look like?
(draw)

Where was the _____
original habitat?

What are some interesting facts about the _____?
(Examples: size, colour(s), food and eating habits, way they move, number of offspring)

Learning Intention 2

What strategies can be used to protect and preserve wilderness and marine areas?

Experiences and Observations

- Read or view *Not For Me, Please! I Choose to Act Green*.
Not For Me, Please! I Choose to Act Green (5:45)
<https://www.youtube.com/watch?v=Uh8Mtswua2w&t=8s>
- Ask students to brainstorm ways wilderness and water/marine areas are being polluted. (Examples: plastic and other garbage waste; leakage from pesticides, fertilizers, landfills, septic systems; industries; fuel spillages; maritime traffic; and deforestations)
- Have students view the video *Voices of the Great Bear Rainforest, Volume 2*:
Voices of the Great Bear Rainforest, Vol. 2 – Art Sterritt (4:55)
<https://www.youtube.com/watch?v=mqwvGWS8OBs&t=1s>
- Have students brainstorm ways to create public awareness of environmental issues in wilderness and marine areas (could be a local space or place).
- Have students discuss ways of protesting these spaces and places. (Examples are: Have a march or rally; create a petition and send to the local, provincial, or federal government; write letters to the local, provincial, or federal government)
- Ethical discussions:
 - ◆ Share with students that marches and rallies can be peaceful and violent. What can be problematic if the march or rally is violent? What is the benefit of a peaceful protest? Why do some protests become violent?
 - ◆ What are the issues of working towards preservation and protection of the environment and creating or protecting jobs?

- Discuss what it means to be an activist. Have the students choose an issue (local or provincial) that could be protested through a march or rally. Create signs for the protest and complete the blackline master: Protest Signs.
 - ◆ Example of issues: pipelines; large companies waste management; clearcutting; water advisories in Indigenous communities; shrinking populations of animals, plants, and minerals; climate change that is affecting lands through flooding and fires.

Possible Topics/Key Vocabulary

- Marine areas
- Activism/activist
- Ethical
- Protest
- Petition
- Positive and negative aspects of businesses and corporations
- Diverse uses of land and water

Reflections on Learning

- Blackline master: *Protest Signs*
- Letter writing

Suggested Resources

The Water Walker

Print resource by Joanne Robertson (grades 1-4)

<https://secondstorypress.ca/kids/thewaterwalker>

We are Water Protectors

Print resource by Carol Lindstrom (recommended for younger students but has strong message.)

<https://us.macmillan.com/books/9781250203557/wearewaterprotectors>

Winston of Churchill: One Bear's Battle Against Global Warming (12:16)

Print resource by Jean Davies Okimoto, illustrated by Jeremiah Trammell. Picture book about a Polar bear who protests for the rights of his community.

https://www.youtube.com/watch?v=2_p7iY1cdf0&t=2s

Extensions

- Investigate drinking water advisories in First Nations communities in Canada.

Autumn Peltier, Anishinabe Water Walker - April 2019 (19:13)

<https://www.youtube.com/watch?v=wdlARBwLtKk>

- Why is it important to research and gain knowledge on an issue before a group decides to actively petition and protest? (Example: Seal Ban: The Inuit Impact:

Seal Ban: the Inuit Impact (13:13)

<https://www.youtube.com/watch?v=KyU0kQ6BUGg>

Great Bear Sea website: Lesson 5: Marine Planning and Perspectives

<https://greatbearsea.net/elementary-curriculum/lesson-5/>

- Have students inquire into Canadian children that have taken the government to court over not protecting the land. (Demonstrate how youth voices can be heard: Fridays for Future with Greta Thunberg:

Fridays for Future

<https://fridaysforfuture.org/>

- Have students explore:

Biosphere reserves

UNESCO website

<https://en.unesco.org/biosphere>

Mission Blue: Hope Spots

<https://missionblue.org/hope-spots/>

- B.C. made the United Nations Declaration on Indigenous Peoples law on November 28, 2019 (Canada June 16, 2021). Article 29 states:

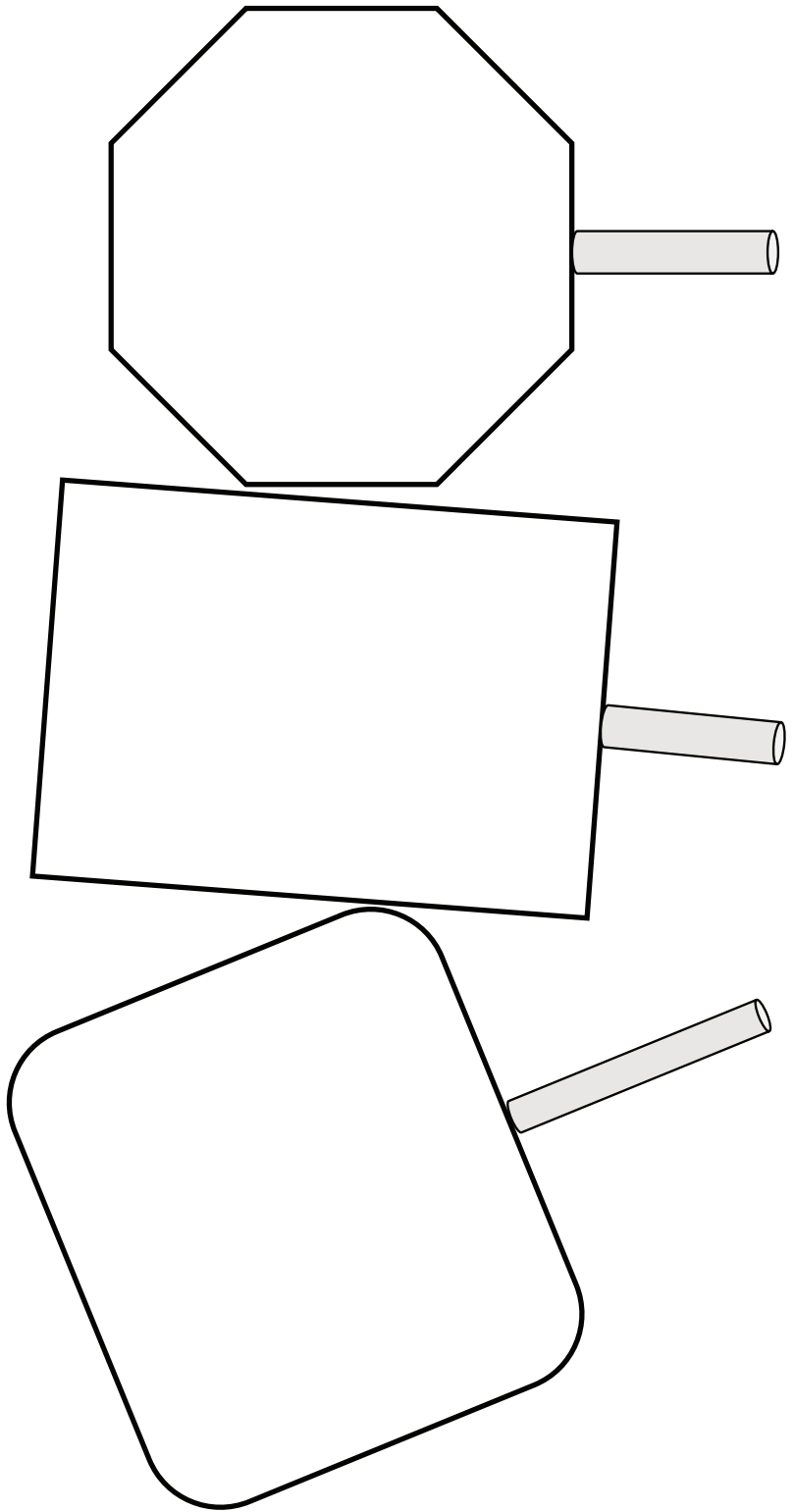
Indigenous peoples have the right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources. States shall establish and implement assistance programmes for indigenous peoples for such conservation and protection, without discrimination.

—*The United Nations Declaration on Indigenous Peoples, 2007*

- What are the implications of this in terms of conservation within BC? Are there other articles within UNDRIP that, in working with Indigenous Peoples, people can work towards more conservative and protective measures?

Protest signs

Design signs that a person could use during a peaceful protest. Define the problem and why it is unethical or disrespectful.



Learning Intention 3

How is the Great Bear Rainforest being conserved?

Experiences and Observations

- Invite students to learn about the history of conservation in the Great Bear Rainforest.
- Have them view history story: Conserving Canada's Great Bear Rainforest (2012).

Conserving Canada's Great Bear Rainforest (11:51)

<https://www.youtube.com/watch?v=rjWBf3Lt0LU&t=1s>

- Students discuss the common purpose: conservation while allowing for jobs (forestry, fishing), then have them view The Great Bear Rainforest.

Great Bear Rainforest – extended version (2:36)

<https://www.youtube.com/watch?v=E4wCN6g9bf4>

- Invite students to work in partners or small groups to explore the agreement and record main aspects. Then gather in a larger group and write the points on a chart paper.

Some main aspects:

- ◆ By 2006 more than half of the coastal rainforest had been logged
 - ◆ 2006 to 2009 114 conservancies were established
 - ◆ 2009 The Great Bear Rainforest Agreement
 - ◆ 2016 the agreement included protection of 85% of forest and 70% of old growth over time.
- Compare conservation efforts (fishing, forestry, animal, and plant protections) in the GBR to actions being taken in students' local area. If no actions are being taken, what could be suggested to local councils/ municipalities? Have students individually or in partners write a fake news article outlining what their local government is doing for local conservation or what they should be doing. Refer to blackline master: *News Article*.

- Students investigate local actions around forest restoration. If there are no local actions being taken, what could be suggested to their local municipal council?
- Invite students to find possible ways to plant trees or indigenous plant species on the school site or in their communities.

Possible Topics/Key Vocabulary

- Great Bear Rainforest
- Clear cutting
- Conservation
- Collaboration
- Conservancies
- Sustainability
- Plant/forest restoration

Reflections on Learning

- Blackline master: *News Article*
- Blackline master: *Self Assessment for Groupwork*
- Tree/indigenous species planting plans and efforts

Suggested Resources

Calvert Island Conservancy

<https://bcparks.ca/calvert-island-conservancy/>

The Great Bear Rainforest facts for kids

https://kids.kiddle.co/Great_Bear_Rainforest

Hakai Lúxvbálís Conservancy

<https://bcparks.ca/hakai-luxvbalis-conservancy/>

Keepers of the Great Bear

Article on the website for the Nature Conservancy

<https://www.nature.org/en-us/magazine/magazine-articles/keepers-of-great-bear/>

The Land Conservancy of British Columbia

<https://conservancy.bc.ca/>

Pacific Wild

<https://pacificwild.org/>

Poems to Honour Mother Earth

Print resource by Leah Marie Dorion (grades 4-6)

https://www.strongnations.com/store/item_display.php?i=7235&f=

Raincoast Conservation Foundation

<https://www.raincoast.org/>

The Whale Child

Print resource by Chenoa T. Y. Egawa and Keith T. A. Egawa
(chapter book, grades 2-5)

<https://www.northatlanticbooks.com/shop/the-whale-child/>

Extensions

- What conservation efforts are happening in your local region? What plants and animals need to be protected?
- The Government of Canada approved the Coastal GasLink pipeline to be built (2014 to 2023) to export natural gas to Asian markets. The end point is Kitimat, B.C. which is not within the Great Bear Rainforest. However, many people see this as creating an environmental impact on the Great Bear Rainforest. Why?
- Invite students to research different careers in forest management and conservation:
 - ◆ Have them identify job roles and responsibilities, pay, locations, job requirements and any other available and/or interesting information
 - ◆ Examples: tree planters, forest nursery workers, forest technicians, wildfire service employee, wildlife biologist, researcher, wildlife guide

Great Bear Sea website Lesson 8: Great Bear Sea Careers

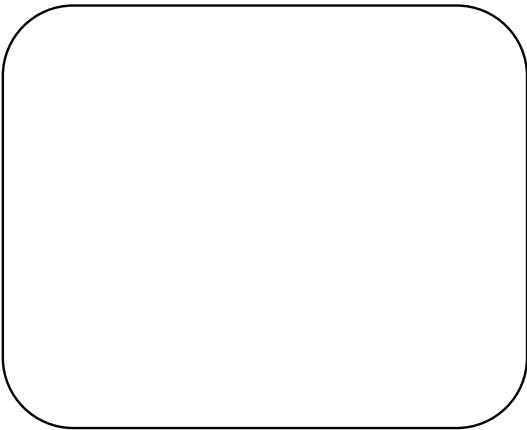
<https://greatbearsea.net/elementary-curriculum/lesson-8/>

The Local News

Date:

Title:

Journalist:



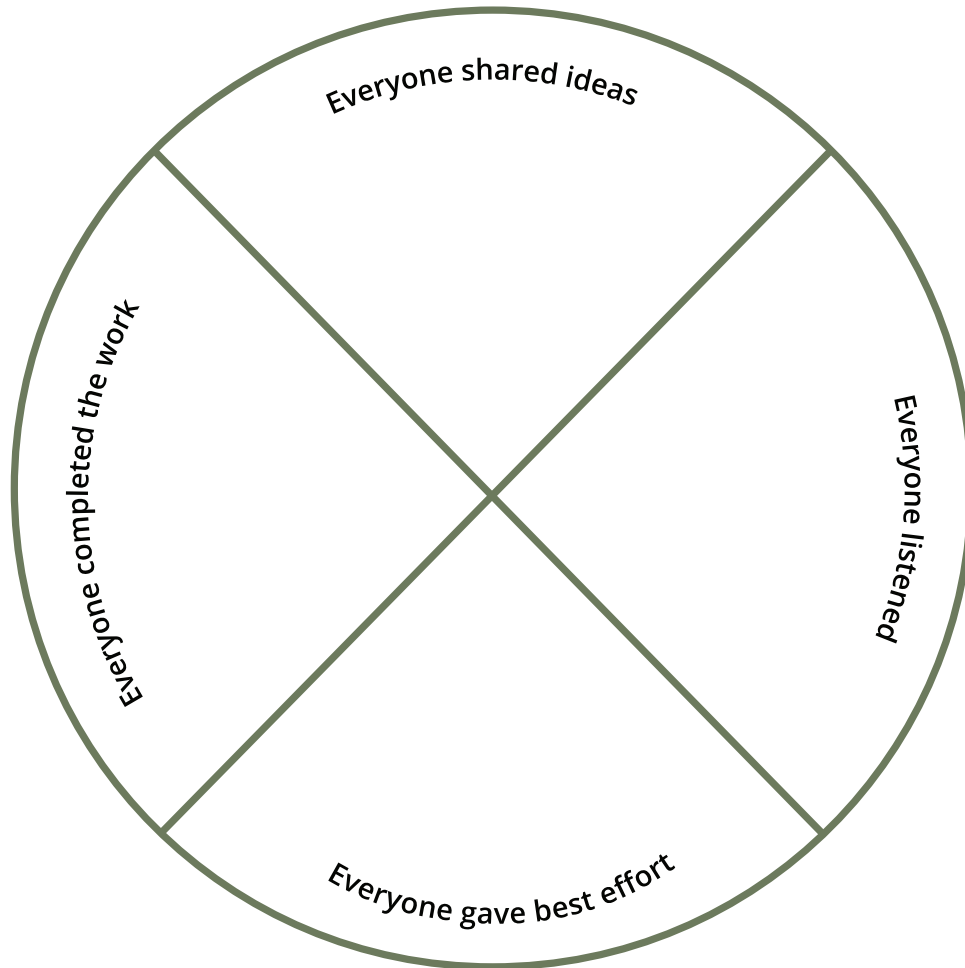
Horizontal lines for writing the news article.

Horizontal lines for writing the news article.

Self-assessment of Groupwork

Write a comment in each section and include:

1 Not at all 2 - Sometimes 3 - Most of the time 4 - All the time



Additional comments (optional):

Learning Intention 4

What challenges do salmon face?

Experiences and Observations

- Read *Salmon Boy: A Legend of the Sechelt People* by Donna Joe (message of balance and care).
- Invite students to learn about the salmon cycle and interconnections between salmon, other animals, and the Gitszan People. Read or view *The Sockeye Mother* by Hetxw'ms Gyetxw (Brent D. Huson).

The Sockeye Mother (5:17)

<https://www.youtube.com/watch?v=Ml83rUHmVc4>

- Have students find out more about the interconnections between salmon and their environments. How do people, animals, and plants rely on the salmon?
- Have students learn more about challenges for salmon:

Climate adaption series: Freshet

Video produced by the Pacific Salmon Foundation

<https://www.youtube.com/watch?v=YSibrf-gDC8&t=50s>

Concerns pipeline construction harming salmon

CTV Vancouver news report, Aug. 9, 2022

<https://www.youtube.com/watch?v=Wj9S8HTabBw>

Salmon Count

Information from the Pacific Wild website

<https://pacificwild.org/campaign/salmon-count/>

- Invite students to reflect on the connections between challenges that salmon face and climate change in their journals, notebooks, or other written sources.
- Students can demonstrate their learning and understandings by building a shoebox diorama, designing a comic strip, or creating spoken word poetry (inspired by Indigenous Métissage). This can be individual, with partners, or in small groups.

- Invite students to write letters to the Prime Minister (no postage required) to express their concerns over issues salmon face.
- If possible, visit a spawning channel to explore challenges (for example, water levels)—or watch:

Weaver Creek Salmon Spawning Channel (4:16)

<https://www.youtube.com/watch?v=WnUm8LJGC3Q>

Salmon Spawning in Charters Creek (Underwater Video) (4:10)

<https://www.youtube.com/watch?v=1usv5h4bl2g>

- Students can play a salmon game to reinforce their learnings:

The Salmon Cycle Board Game

<https://schools.bchydro.com/activities/sustainability/salmon-life-cycle-game>

Salmon Survival Board Game

<https://media.fisheries.noaa.gov/2022-01/salmon-survival-board-game.pdf>

Possible Topics/Key Vocabulary

- Salmon and connections to Indigenous Peoples and all things of the earth
- Salmon cycles
- Loss of salmon populations
- Conservation
- Spawning channels

Reflections on Learning

- Diorama, comic strip or spoken word poetry
- Blackline master: *Self Assessment for Groupwork*
- Letter to premier of B.C.

Suggested Resources

River of the Salmon Peoples

Print resource by Jeanette Armstrong and Gerry William (grade 5 to adult)

https://www.strongnations.com/store/item_display.php?i=5804&f=

Salmon: Swimming for Survival

Print resource by Rowena Rae (grade 4-7)

<https://www.orcabook.com/Search?Keywords=salmon%3a+swimming+for+survival>

My Life with the Salmon

Print resource by Diane Jacobson (grade 7-9)

<https://www.theytus.com/Books/M/My-Life-with-the-Salmon>

Extensions

- Students can construct graphs to demonstrate changes in salmon populations over time.
- Invite students to investigate First Nations understanding and interconnectedness with salmon and their understanding and knowledge of decreasing salmon populations.
- Have students investigate the farming of salmon. How does this affect wild salmon? What is being done to control the effects of farmed salmon?

Learning Intention 5

How is the Great Bear Rainforest being affected by climate change?

Experiences and Observations

- Read or view *A Stone Sat Still* by Brendan Wenzel:

A Stone Sat Still (3:42)

<https://www.youtube.com/watch?v=WlY-L7pxuTs>

- Ask students what they noticed about all the animals living on, around the rock, and the changes over time. Why were there so many changes? These changes usually happen over a long period of time, but with climate change the changes are happening much faster.
- Discussion in small groups:
 - ◆ Why should these changes matter to us?
 - ◆ How will climate change affect the Great Bear Rainforest? What will be the effects of drought? increases in temperature?
- Brainstorm: What can we do to take action? What does stewardship mean?
- Invite students to create poems about climate change (in the Great Bear Rainforest or their local community) and make posters centering around their poetry.

Possible Topics/Key Vocabulary

- Climate change
- Drought
- Stewardship

Reflections on Learning

- Poster with poem

Suggested Resources

Groundswell: Indigenous Knowledge and a Call to Action for Climate Change

Print resource by David Abram Taiaiake Alfred and more (grade 11- adult, teacher resource)

https://www.strongnations.com/store/item_display.php?i=7483

We Have a Dream: Meet 30 Young Indigenous People and People of Color Protecting the Planet

Print resource by Mya-Rose Craig, illustrated by Sabrena Khadija (grades 3-7)

https://www.abramsbooks.com/product/we-have-a-dream_9781419756665/

Extension

- Have students investigate more ways to demonstrate stewardship and have them act on those they can. (Examples: creating a play or presentation, displaying their artwork, poetry or spoken work on the theme of stewardships at a local coffee shop or art gallery, city hall, school board office etc.)

Learning Intention 6

Why protect the Spirit Bear?

Experiences and Observations

- Learn the story of the Spirit Bear. View the video, Rainforest Guardians: Spirit Bears and the Gitga'at Nation:

Rainforest Guardians: Spirit Bears and the Gitga'at Nation (3:59)

<https://www.youtube.com/watch?v=H3vEO8pMWoc&t=1s>

- Have students research some facts about the Spirit Bear.

Examples:

- ◆ They are white-coated black bears
- ◆ Also referred to as Kermode
- ◆ They eat salmon and berries and more
- ◆ They live to about 25 years in the wild
- ◆ They are an endangered species
- Invite students to write a letter to the Spirit Bear or another animal. They can express what they like about the animals, their concerns for the animal's future (with climate change, human activities, etc.), what conservation efforts should be applied.
- Explore human impacts on animal species locally and discover how students can advocate for the animals. Have students take action by creating posters or writing another letter, but to a government leader.
- Share the quote: "How do we love the land, and how does the land love us back?" - Robin Wall Kimmerer. Have the students respond to quote through song, spoken word, video, or PowerPoint.

Possible Topics/Key Vocabulary

- Spirit Bear
- Conservation
- Guardianship
- Advocacy

Reflections on Learning

- Letter to an animal
- Poster or letter to government leader
- Response to Robin Wall Kimmerer quote

Suggested Resources

Braiding Sweetgrass for Young Adults: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants

Print resource by Monique Gray Smith and Robin Wall-Kimmerer (grade 7 to adult)

<https://lernerbooks.com/braidingsweetgrass/>

“Spirit Bear”

Canadian Encyclopedia entry

<https://www.thecanadianencyclopedia.ca/en/article/spirit-bear>

Great Bear Rainforest: A Giant-Screen Adventure in the Land of the Spirit Bear

Print resource by Ian McAllister and Alex Van Tol (grades 4-7)

<https://www.orcabook.com/Great-Bear-Rainforest>

A Voice for the Spirit Bears: How one Voice Inspired Millions to Save a Rare Animal

Print resource by Carmen Oliver (grades 1-4)

<https://www.kidscanpress.com/product/voice-for-the-spirit-bears-a/>

Extensions

- Invite students to create and share PowerPoint presentations on why to protect the Spirit Bear or another endangered animal.
- Make cut outs of the Spirit Bear shape and have students write facts about Spirit Bears or why they should be protected. Display around the school so others ask about what they know about Spirit Bear.



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