



Making a difference...together

# COUGARS!

## Educators Guide

### Program at a Glance

On this inquiry driven educational program, we will explore the elusive and mysterious world of cougars and the important role they play as top predator in a balanced ecosystem. We begin with an engaging activity that focuses on Vancouver Island's top predator. Students then divide into smaller groups to explore the forest, learn about unique cougar characteristics, predator-prey relationships, and test their cougar skills.



There will be opportunities to touch pelts, examine skulls and foster a sense of stewardship for these magnificent animals.

### In this program, your students will...

- Observe and learn to identify signs of cougars
- Discover the habitat requirements of cougars
- Explore how cougars use their senses to interact with each other and survive
- Understand the essential role cougars play as top predators in the food chain
- Evaluate the impact of our actions on cougars and their environment, and consider what we can do to coexist with them

### 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:

- All living things respond to their environment (grade 4)
- Multicellular organisms have organ systems that enable them to survive and interact with their environment (grade 5)

### **Curricular Competencies from BC Curriculum:**

- Demonstrate curiosity and sense of wonder about the world
- Observe objects and events in familiar or unfamiliar contexts
- Identify questions about familiar objects and events that can be investigated scientifically
- Make predictions based on prior knowledge
- Safely use appropriate tools to make observations and measurements
- Make and record simple measurements using informal or non-standard methods
- Make observations about living and non-living things in the local environment
- Use equipment and materials safely, identifying potential risks
- Experience and interpret the local environment
- Transfer and apply learning to new situations
- Generate and introduce new or refined ideas when problem solving
- Make simple inferences based on their results and prior knowledge
- Demonstrate an understanding and appreciation of evidence
- Identify some environmental implications of their and others' actions
- Express and reflect on personal or shared experience of place

### **Content from BC Curriculum:**

- The ways organisms in ecosystems sense and respond to their environment (grade 4)
- Biomes are large regions with similar environmental features (grade 4)
- Basic structures and functions of body systems (grade 5)

## **Suggested Pre-trip Activities**

- As a class, generate a list of questions about cougars and bring it to the park to see if you can discover any of the answers on the program.
- Pick a top predator on Vancouver Island and draw their food chain. Write an imaginary story that incorporates all of the elements of the food chain.
- Look at a range map of cougars throughout North America, and add the names used for the animal in the different regions on the map.

## Follow-up Activities

- Revisit your class questions list and discuss your findings.
- Create a mural for your classroom of a forest ecosystem with cougars, and one without cougars.
- Sometimes cougars and people clash. Discuss ways that we can protect these important top predators.
- Write a short story about a real animal, based on your own library research. Read it to the class and see if they can guess what you made up and what you based on science.
- Have students write a story about any top predator that lives in Francis/King Regional Park.
- Borrow a cougar skull from the Royal British Columbia Museum
- Invite a cougar expert to visit your class. The Ministry of Environment can provide a list of cougar experts in your area.

## Background Information on Cougars

### Cougars in their Ecosystems

Research in North and South America has shown that the disappearance of cougars can have a profound effect on ecosystems leading to a loss in biodiversity. In many areas, the overabundance of deer have had a huge impact on vegetation and bird communities, and this has been linked to the historical elimination of cougars and wolves from their ecosystems. What started with the disappearance of cougars and other top predators has ended with ecological collapse and the disappearance of many species.

### Threats to Cougars

Habitat loss and overkill are the primary threats to the survival of cougar populations. As human populations grow and spread across the landscape, the amount of habitat left for cougars and other wildlife is shrinking and becoming increasingly fragmented. On Vancouver Island, we have a healthy cougar population. To sustain cougars and limit conflicts with people, we have to ensure that cougars have the habitat requirements they need. Parks and protected areas must provide habitat and continuous protected space across the landscape where these large predators can live. People can learn to coexist with cougars by, allocating sufficient habitat for them and by learning about their natural history so that we can limit contact with them.

## Online Resources

### Wildsafe BC

General information about cougar natural history, cougar safety, and tips on how to reduce conflict with cougars

<https://wildsafebc.com/cougar/>

### VI-Wilds

Great information about cougars on Vancouver Island, their density and ecological importance

<http://www.geog.uvic.ca/viwilds/iw-cougar.html>

### BC Government

Information on cougar safety with printable brochure

<https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/wildlife/human-wildlife-conflict/staying-safe-around-wildlife/cougars>

## Additional Resources

Aleck, Celestine. We Are All Connected: Coast Salish, Coastal Rainforests and Cougars. Strong nations, 2017.

Eder and Pattie. Mammals of British Columbia. Lone Pine Publishing, 2001.

Wild, Paula. The Cougar: Beautiful, Wild and Dangerous. Douglas & McIntyre, 2013.