



DIG DEEPER FOREST HEALTH

Is your local forest healthy?

The urban forest includes local parks, trees, wildlife and more. It can be particularly vulnerable to disturbance, climate change and human impacts. To effectively monitor our urban forest, we need to be familiar with what naturally grows and lives here. How can you tell if your local forest is healthy?

GUIDING QUESTIONS

- + What lives in Surrey's urban forest?
- + How many native plants and animals can you identify? Can you name at least three trees, shrubs, mammals, birds and bugs?
- + What makes a forest healthy?
- + Does an urban forest look different than a forest outside the city?
- + How do invasive plants, drought, or people going off-trail affect forest health?
- + What else is affecting forest health in Surrey?
- + What is biodiversity? Is the forest near you a good example of a place with high biodiversity?
- + What are some ways scientists study the health of a forest?
- + What is an ecological indicator? What are some local examples?
- + How have First Peoples cared for natural ecosystems? What can we learn from those practices?
- + How can you help keep forests healthy?

BACKGROUND

Surrey forests have experienced a lot of change over time. Much of Surrey was once covered in old-growth forests stewarded by Coast Salish First Nations. When settlers arrived, many trees were logged and cleared for farming. Now, we have pockets of second-growth forest across the city. It's important for us to manage and care about the ecological integrity of these areas.

Forest health can be difficult to assess, but ongoing monitoring and restoration efforts can help preserve and protect the urban forest. Ecological indicators help us monitor changes in natural areas. An indicator species is a plant or animal that is sensitive to disturbances; it reacts quickly to changes in habitat quality and therefore provides an early warning sign of reduced habitat value. Some common ecological indicators are lichens, amphibians, insects and plants that are particularly sensitive to disturbances. We can also monitor forest health by assessing soil, tree survival rates, and invasive species.

CURRICULAR CONNECTIONS

Content for students to explore:

Kindergarten: needs and adaptation of local plants and animals

Grade 1: names of local plants and animals, behavioural adaptations

Grade 2: First Peoples use of their knowledge of life cycles

Grade 3: biodiversity, the knowledge of local First Peoples of ecosystems

Grade 4: forest biomes, sensing and responding (plants and animals)

Grade 5: First Peoples concepts of interconnectedness in the environment and sustainable practices, earth materials, natural resources of BC

Grade 6: international cooperation and responses to global issues

Grade 7: evolution of organisms, natural selection, survival needs, local climate change

Curricular competencies for students to develop:

- Experience and interpret the local environment
- Identify some of the social, ethical, and environment implications
- Communicate ideas, explanations, and processes in a variety of ways
- Express and reflect on a variety of experiences and perspectives of place

ADDITIONAL RESOURCES

City of Surrey *Biodiversity Conservation Strategy*

Ladders and Lacks activity (Coyote's Guide to Connecting with Nature)

NatureWatch naturewatch.ca



Surrey Parks works together with the community to celebrate nature and protect the environment.

Visit us online to plan your park visits, connect with nearby nature and help your students become stewards of our urban forest.