



Colonization and Our Changing Landscape

Organization

Title: Colonization and our Changing Landscape

Summary: Students will explore how different landscapes change within 20-30 years from urbanization. Students can then extend this thinking to a timeline before colonization, and how the present landscape will look 100 years from now.

Inquiry Question: Inquiry Question 3: Teacher Language: How Does the Culture of a Group of People Impact the Biodiversity of a Place?

Duration: 1 hour

Learning Environment: Indoor

Season: All

Materials:

- Land Changes Over the Years.pptx
- Jamboard or writing tools
- Computer
- Impact of Forest Fragmentation on Thrush Species.pptx
- Optional Extension- Introduction to Birding Worksheet.pdf

Curriculum Links:

Science and Technology: B1.1, B1.2, B2.1, B2.8, D1.1

Geography: A1.2, A1.4, A2.5

Meta Data:

Content Type: Activity, language learning

Bundle: Gifts of the Earth

Theme: Biodiversity Crisis

Subject Area: Biology, Environmental Education, Geography, History, Science, Social Studies

Curriculum Focus: 7

1. In pairs, students are assigned 2 pages from the PowerPoint titled **Land Changes Over the Years.pptx** (1 page from the past, 1 page from the present). Students discuss any changes they notice in the circled areas. Students reflect on what changes they see and how these changes might impact the local ecosystem. Students can then share what they learned on a Jamboard or make a class note.
2. As a class, make a note that captures what students learned about human impact on the biodiversity of ecosystems from the aerial photographs.



Prompts for the class note:

How can we see biodiversity in these maps? Has biodiversity changed and if so, in what ways? Will the biodiversity in this area continue to change? What are the impacts of this change?

Students should be able to:

- Note key species
- Observe overall ecosystem changes
- Share stories (orally or visually) of how these areas have changed and how the changes have impacted biodiversity with a partner/group/teacher.

Western Science Connection

Bird diversity can change based on the size of fragments of forests. For example, wood thrushes disappear quickly from small forest fragments while other species do well.

1. Teacher reviews the impact of forest fragmentation on wood thrush species using the PowerPoint titled **Impact of Forest Fragmentation on Thrush Species.pptx**. After reviewing the PPT students can hypothesize on how the changes depicted in the images in the PPT have impacted local bird species. For instance, students can look at the aerial photos from the two times and calculate the area of forest cover. Using that information, students can estimate what the changes in forest cover have done to the bird species and which species were extirpated from the area.

Optional Extension Activity: Bird Identification

To strengthen students' relationship to the natural world and own ability to monitor the well-being of local birds, students practice IDing local bird species while learning the name for bird species in Kanyen'kéha and Anishinaabemowin. Instructions are included in a folder in the Optional Extension Activity titled **Introduction to Birding.pdf**.