



Oak Ridges Moraine Land Trust Activity Guide for Teachers

Activity: Make Your Own Kettle Lake

Age range: Grade 3-Grade 6

Supplies:

- Plates or bowls (one per student)
- Ice cubes (one per student)
- Soil or sand

Background:

- Kettle lakes are a glacial feature found across the Oak Ridges Moraine. They were formed when giant chunks of ice left behind by the retreating glaciers melted about 10-12,000 years ago. Today, they provide an important habitat for many animals and plants, including species at risk like the Blanding's Turtle.

Instructions:

- Each student fills their plate with soil, representing the landscape of ancient Ontario.
- Next, they place the ice cube in the soil, representing the giant ice chunk left behind by the retreating glaciers. Make sure that the ice cube is partially buried in the soil, not left on top of the soil surface.
- Students wait for their ice cubes to melt.
- Once the ice melts, the water left behind will form a miniature kettle lake.

Inquiry-based learning questions:

- How do we know that the glaciers used to cover Southern Ontario?
- What did the glaciers do to the landscape?
- Where can we find glaciers today?
- What lakes and rivers have we visited?
- What kind of animals and plants would call a kettle lake home?
- Why are kettle lakes an important habitat?
- Why are lakes important for humans?

Curriculum Connections:

Grade 3:

- E1. Relating Science and Technology to Our Changing World - assess the importance of soils for society and the environment, and the impact of human activity on soils
- E2. Exploring and Understanding Concepts - demonstrate an understanding of the composition of soils, of different types of soils, and of processes and practices that can affect the health of soil

Grade 4:

- B. Life Systems - Habitats and Communities
- B2. Exploring and Understanding Concepts - demonstrate an understanding of habitats and communities and of interrelationships among the organisms that live in them
- E. Earth and Space Systems - Rocks, Minerals, and Geological Processes
- E1. Relating Science and Technology to Our Changing World - assess the social and environmental impacts of geological processes and of human uses of rocks and minerals
- E2. Exploring and Understanding Concepts - demonstrate an understanding of rocks, minerals, and Earth's geological processes

Grade 5:

- E. Earth and Space Systems - Conservation of Energy and Resources
- E1. Relating Science and Technology to Our Changing World - assess effects of energy and resource use on society and the environment, and suggest options for conserving energy and resources
- E2. Exploring and Understanding Concepts - demonstrate an understanding of the conservation of energy, and the forms, sources, and uses of energy and resources

Grade 6:

- B. Life Systems - Biodiversity
- B1. Relating Science and Technology to Our Changing World - assess the importance of biodiversity, and describe ways of protecting biodiversity
- B2. Exploring and Understanding Concepts - demonstrate an understanding of biodiversity, its contributions to the stability of natural systems, and its benefits to humans

More Resources:

- [The Oak Ridges Moraine Land Trust](#)
- [YouTube Video - How the Oak Ridges Moraine Was Formed](#)
- [Glaciers - Georgian Bay Biosphere](#)

Craft example:

