



Oil Spill Cleanup

Organizational Info:

Title: Oil Spill Cleanup

Summary: Students use an egg carton to learn about how contaminants spread in a watershed and about the difficulties related to oil spill cleanup.

Inquiry Question: Inquiry Question 5: What are our collective responsibilities to the water and how can we fulfill them?

Duration: 60 min

Learning Environment: Classroom, outdoor

Season: All

Materials:

- Oil Spill Cleanup.pdf
- Empty cardboard egg carton
- Water
- Food coloring
- Flaxseed meal or another powdery substance
- Paper towels
- Tray to place under the egg carton
- Website: <https://twnsacredtrust.ca/dilbit/>
- Oil Spill Modeling and Remediation.pdf

Meta Data:

Content Type: Activity

Bundle: Water

Theme: Contaminants in the Environment

Subject Area: Biology, Environmental Education, Geography, Health, Outdoor Education, Science, Social Studies

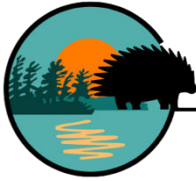
Curriculum Focus: 8

Curriculum Links:

Science and Technology: A1.2, C1.2, E1.1, E1.2, E2.2, E2.3, E2.4, E2.6

Following the **Oil Spill Cleanup.pdf** students use an egg carton to learn about how contaminants spread in a watershed and get into groundwater. Students question how the contaminants can be removed and talk about the implications of contaminants getting into groundwater.

Activity adapted from: <https://learning-center.homesciencetools.com/article/water-pollution-demonstration/>



Optional Extension:

Students learn the difference between crude oil and diluted bitumen (dilbit) and how it behaves in water. Crude oil is less dense than water, so it floats on the surface. Dilbit starts out floating on the water surface, but within 8 days, it has changed composition and sinks to the bottom.

See link for more information: <https://twnsacredtrust.ca/dilbit/>

In discussion students can compare a crude oil spill to a dilbit spill. Discuss strategies for clean up when the oil is on the surface compared with oil that has sunk to the bottom. Discuss the different effects on ecosystems, local communities, in addition to long-term impacts.

Western Science Connection:

Using the **Oil Spill Modeling and Remediation.pdf** students learn about Diane Orihel's lab's work on oil spill modeling and remediation using mesocosms at the International Institute for Sustainable Development Experimental Lakes Area (IISD-ELA):

<https://www.queensu.ca/research/features/deliberating-dilbit>

1. Students conduct research into the various Indigenous led resistance movements happening across Turtle Island to stop the oil extraction and the transportation of oil. Some activists students can begin the research process looking into include:

Winona LaDuke, Alex Wilson, Jasilyn Charger, Mike Mckenzie (Tiny House Warriors), Freda Huson, Joye Braun, LaDonna Brave Bull Alard, and Quannah Chasinghorse etc.

2. Teacher leads a talking circle with students regarding their findings. Instructions regarding how to facilitate a talking circle in a good way can be found in the Teacher's Guide.