

# Tell Me a Story



## Lesson Eight

Age range: 12 and up (intermediate to senior)

Time: 2.5 to 3 hours research; 4 to 5 hours for finished product

Subject: Science, Civics, World Issues, Geography, English

### Learning Outcomes

Students will research a forest or water topic and present the information to a younger audience in story/picture book form. Other presentation ideas for various audiences are included in the Extensions.

### Hook: Teaching Younger Students About Forests and Water



As a class, read *The Lorax* by Dr. Seuss, or another children's book with a conservation theme. Discuss what makes a children's book effective or ineffective. The best books will:

- be based on a plot and main character(s) with whom children can identify,
- incorporate a rhyming pattern,
- be of appropriate length,
- contain appropriate vocabulary and reading level,
- be enhanced by illustrations.

OR

### Are all research sources equal?

To prepare, visit the Dihydrogen monoxide research site ([www.dhmo.org](http://www.dhmo.org)) which – in a very serious and convincing manner – presents alarming information on a *deadly* chemical found *everywhere* (you guessed it... WATER!). Print several pages for groups of students to examine.

Hand out these information sheets to your students at the start of class, telling them it's from a Web site about a deadly pollutant. Ask them questions about this chemical, until one or more of the students realize that it is a prank, designed to challenge their thinking on the reliability of Internet research material. Discuss criteria for reliable sources (e.g., recent, up-to-date, associated with an academic and/or well-known organization, balanced). As well, stress the importance of tracking information sources.

### Procedure



**1** Ask students, individually, in pairs, or small groups, to research a topic related to Canada's forests and freshwater and create an illustrated children's book (see Plot Ideas *handout on page 34*). Once complete, the students could read their books to groups of younger children.



### Extensions

Write a class letter to someone involved in conservation, describing what the students have learned about them and the impact of their actions.

Prepare a presentation to the class on that person/conservation activity.

Have each student or group contribute their research findings to a large wall chart.

Ask groups of students to create a short video for the entire school on the importance of forests and wetlands in sustaining freshwater.

Write and perform a short play, incorporating music and interactive songs, for younger students in the same school, or at an adjacent school.

# Tell Me a Story: Plot Ideas

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**1** Freddy the Frog, Austin the Otter and friends are affected by negative changes to their wetland/pond/river. Together, using their unique abilities, they discover the source of the changes (possibly some type of pollution), and fight to restore their home.

*See Topic 4: Researching Forest and Freshwater Threats.*

**2** Walter the Water Droplet experiences various adventures and overcomes many obstacles as he does his duty to travel through the water cycle while being filtered by Canada's forests. Obstacles could include pollutants, heavy run-off, dense soils, and lack of trees.

*See Topic 4: Researching Forest and Freshwater Threats.*

**3** Lena, a city child, and Pierre, a country child, team up to fight threats to their local forests, wetlands and water. They discover sustainable forestry practices that work to meet the needs of everyone.

*See Topic 4: Researching Forest and Freshwater Threats.*

*Local issues can also be researched.*

**4** An African community is devastated by deforestation. A woman named Wangari Maathai (2004 Nobel Peace Prize Winner) convinces everyone in the village to plant numerous trees in order to reap an enormous variety of benefits. The story could be told from the perspective of a child living in the village, or of the village itself.

*See Lesson 6: Trees, Water and Peace on page 26.*

**5** Create a brief life story of someone who has made a difference in the field of conservation or sustainable management practices.

*See Topic 1: People Who Have Made a Difference in Conservation.*

**6** The story of a Canadian Heritage River, told from the river's perspective, from the time of traditional Aboriginal communities through to present day. The names by which the river has been called could also be included, as well as the different uses, threats and conservation actions/sustainable forestry practices the river has experienced over time.

*See Topic 3: Canadian Heritage Rivers and Marshes.*

**7** Members of the Waters family do not seem to care much about forests and freshwater. Then one day something serious happens to make the family more aware (a flood, water shortage or a pollution incident). After this they begin to conserve water in and around their home, plant trees and participate in other forest and water conservation activities and sustainable practices.

*See Topic 2: Forest and Water Conservation Activities.*



# Tell Me a Story: Topic Ideas

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## People Who Have Made a Difference in Conservation

**1** Most foresters and conservationists do not receive recognition from the media or general public. Unlike many of the people listed below, they get little or no attention for their tremendous ground-level work towards the sustainable use of our forest resources. For a better understanding of these people and their accomplishments, contact your provincial Registered Professional Forester Association for a list of foresters in your area. Also visit [www.cfs.nrcan.gc.ca](http://www.cfs.nrcan.gc.ca) for a list of regional scientists and their conservation projects.

The following people are well known for their dedication towards conservation projects in Canada and around the world:

Ryan Hreljac, Ryan's Well Foundation

Dave Brand, Canada's Model Forest Program

Anita Roddick, The Body Shoppe

Rick Mercer, One-Tonne Challenge

David Suzuki, Scientist, Author and Journalist

Rachel Carson, *Silent Spring*

Jack Miner

James W. Fyles

Aldo Leopold

Father Goose, Bill Lishman

Simon Jackson, Spirit Bear Youth Group

Jane Goodall

Patrick Moore, co-founder, GreenPeace

Elizabeth May, Sierra Club of Canada

Dianne Fossey

Bill Mason

Grey Owl

Frank Dottori, CEO Tembec

Hamish Kimmins, Professor of Forest Ecology at the University of British Columbia.

Use the inter-library loan program at your local library to access the hardcover book *Biographical Dictionary of American and Canadian Naturalists and Environmentalists* (ISBN: 0-313-23047-1, 960 pages, Greenwood Press, 1997, \$220.95)

The First Nations Environmental Network, [www.fnen.org](http://www.fnen.org), lists individuals as well as groups.

## Forest and Water Conservation Activities

**2** Canada's Water and Wastewater Association maintains a Water Efficiency Experience Database where you can search for water efficiency initiatives across Canada. Search by province/territory or by topic area: Community Activities, Indoor, Outdoor and Legislative. If your students start a school-wide or community initiative, you can post it here! [www.cwwa.ca/WEED/Index\\_e.asp](http://www.cwwa.ca/WEED/Index_e.asp)

The Canadian Model Forest Network Web site, [www.modelforest.net](http://www.modelforest.net), is an online guide to the events, projects and activities conducted by the Network. For information on Model Forest conservation programs, select *Project Showcase* in the left sidebar. Explore the Fundy Model Forest watershed protection program details, including background information, the stakeholders, and the project's objectives. Also check out the Western Newfoundland Model Forest project located near Gros Morne National Park, designed to provide sustainable forest management training for front line forest workers. Another interesting project is the Eastern Ontario Model Forest *Bog to Bog* program in Kemptville ON; select *Canadian Model Forests* from the sidebar menu, then *Eastern Ontario*.

For information on a stream enhancement project shared by the Black River First Nations and the Manitoba Model Forest near Pine River visit [www.black-river.ca/BioMonitoring.htm](http://www.black-river.ca/BioMonitoring.htm) and select *Projects*.

The North American Wetland Conservation Council's [www.wetkit.net](http://www.wetkit.net) Web site provides great information about programs across Canada. Select *Tools*, then *Sector*, and then *Education*. At the right, in the *For More Information* box, select the province/territory of your choice.



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Visit FORWARD, the Forest Watershed and Riparian Disturbance Project Web site at <http://forward.lakeheadu.ca/>. This huge project involves many experiments that focus on the transfer of substances to surface water from soils in disturbed and undisturbed watersheds, linked with a set of models that can work with spatially-based planning tools of the land managers. Using a combination of intensive state-of-the-art experimental research at the watershed scale and the application of modeling and decision support tools, the FORWARD project will deliver recommendations and models on approaches for watershed management in multi-user forests on the Boreal Plain of Western Canada.

There is also a wide variety of water projects and environmental education resources for teachers on the Ducks Unlimited Canada Web site: [www.ducks.ca](http://www.ducks.ca).

### **Canada's Heritage Rivers and Marshes**

**3** The Canadian Heritage Rivers System (CHRS) is Canada's national river conservation program. It was designed to promote, protect and enhance Canada's river heritage, and ensure that Canada's rivers are managed in a sustainable manner; visit [www.chrs.ca](http://www.chrs.ca). Information on the CHRS can also be found on the Atlas of Canada Web site, <http://atlas.gc.ca>. In the *Search Our Site* box input *Heritage Rivers*. Search results are generated in two formats: maps and text.

At present, Canada has 36 designated Wetlands of International Importance (marshes). The Ramsar Web site, [www.ramsar.org/profiles\\_canada.htm](http://www.ramsar.org/profiles_canada.htm), provides a brief description of each and links to Canada's national wetland policy.

### **Researching Forest and Freshwater Threats**

**4** Researching the effects and possible remedies of one or more threats to a water source (consider animals, plants and people) is a great learning opportunity for students. Threats include:

- deforestation
- removal of vegetation from the water's edge
- sources of pollution including industry and excess fertilizers and pesticides from farming
- recreational activities such as oil residue from small boat motors, lead fishing lures and lead shot from small game hunting
- all-terrain vehicles
- transfer of exotic species
- urban storm sewers
- lawn pesticide run-off
- erosion
- dredging
- filling
- improper logging
- cropping and fossil fuel exploration practices
- dumping of any kind
- draining for farm land creation
- harvesting of peat moss
- invasive construction of transportation and energy transmission corridors.