

“At-Capacity Cold Water Lake Trout Lakes” lesson plan

Duration: 60 minutes

Objectives:

- Students will demonstrate an understanding of biodiversity, its contributions to the stability of natural systems, and its benefits to humans.
- Students will demonstrate an understanding of interactions between and among biotic and abiotic components in the environment.
- Students will understand the impacts of development on freshwater resources and how humans manage factors such as stormwater runoff and natural buffers.
- Students will assess the impact of human activities on the environment, and analyze ways to mitigate negative impacts and contribute to environmental sustainability.
- Students will apply their knowledge through effective science communication approaches involving text and illustrations.

Background:

Seven cold water lake trout lakes are ‘at capacity’ for shoreline development in the Municipality of Hastings Highlands, threatening local lake trout populations including the unique Jewel Lake Trout. Lake Trout rely on very specific conditions for water health and oxygen levels to maintain life. Understanding the importance and continuing need to protect these special environments will ensure sustainable cold water fish habitats for generations to come. This activity will help students understand and communicate the importance of reducing the cumulative impacts of development on deep cold water lakes to protect water quality and lake trout population habitats in Hastings Highlands.

Materials:

- One “At-Capacity Cold Water Lake Trout Lakes Fact Sheet” handout per student
- Poster Paper
- Colouring Utensils

Procedure:

1. Give an “At-Capacity Cold Water Lake Trout Lakes Fact Sheet” handout to each student.
2. As a class, read through the handout and highlight any important terms or concepts.
3. Discuss how these findings affect lake trout populations and the local community, and why they are important. Then discuss what collaborative actions can be taken to address these issues and protect local freshwater resources.
4. Distribute a poster paper to each student and ask them to create an informational poster on the topic of at-capacity cold water lake trout lakes. Student posters should be informative as well as visually appealing and easy to understand. Students are encouraged to use the handout and research additional information for their posters!
Note: Be sure to review what elements of design are key to creating a successful informational poster and the importance of science communication.
5. For more information about fish habitat restoration programs, be sure to visit:
Watersheds Canada's fish habitat page: <https://watersheds.ca/our-work/habitat-programs>
The North Hastings Community Fish Hatchery: <https://www.youtube.com/watch?v=urBKvD3URc8>
North Hastings Community Fish Hatchery: <https://fishhatchery.ca>