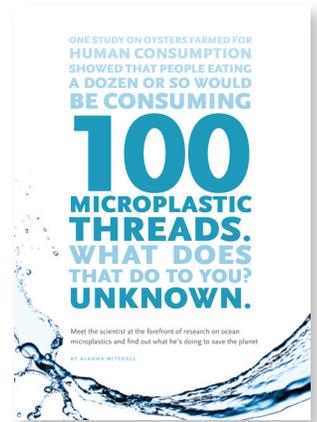


CANADIAN GEOGRAPHIC IN THE CLASSROOM

Article ‘... Eating microplastic threads.
What does that do to you? Unknown.’
Issue December 2016



Learning overview

- Students will explore the issue of microplastics by reading Canadian Geographic’s article ‘... Eating microplastic threads. What does that do to you? Unknown.’ and organizing their learning into a mind map.
- To consolidate their learning, students will develop an action plan that includes various stakeholders to limit or eliminate microplastics.

Grades:

- 5-8

Materials:

- Copies of ‘... Eating microplastic threads. What does that do to you? Unknown.’ feature from the December 2016 issue of *Canadian Geographic* (one for each group, or projected for the class)
- Sticky notes
- Copies of mind map worksheet (attached)
- Access to computers for research
- Copies of action plan template (attached)
- Writing tools
- Whiteboard/blackboard or projector

Guiding questions

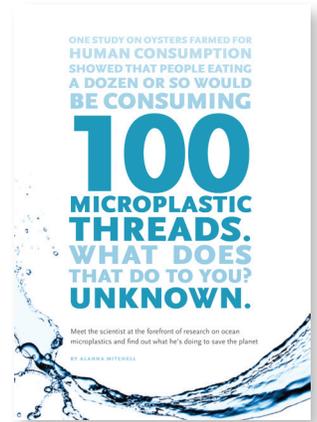
- Why are microplastics a problem? Who caused this problem?
- For whom are they a problem?
- How is the problem currently being managed? Is it effective?
- What are some future problems involving microplastics?
- What are some possible solutions? Who would implement these solutions? Why them?
- How can you help?

Activity

- Minds On: Write on the board or project the following sentence from the article: “[...] by the middle of this century there will be more plastic by weight in the ocean than fish.” Give each student a sticky note. After reading the sentence, ask students to note their reactions to it by drawing a picture, or writing a word or a sentence.
- When they are finished, ask students to put the sticky note on a wall in the classroom. Once everyone is finished, have students walk around silently to read and observe the different reactions.

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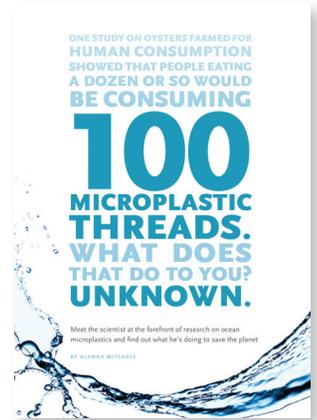
- As a class, discuss students' reactions and why they reacted as they did. Lead a class discussion about the potential impacts of having more plastic by weight in the ocean than fish. (Possible questions: How would this affect the animals? How would this affect humans? Would all humans be affected?)
- Distribute a copy, or a portion of, the ‘...Eating microplastic threads. What does that do to you? Unknown’ feature from the December 2016 issue of *Canadian Geographic* to groups of two or three students and have each group read the article.
- Discuss the article and take notes as a class in the form of a mind map with “microplastics” as the starting word in the centre. (Ideas: problem, impact, solutions, technology being used, location, etc.) Distribute a copy of the mind map worksheet to each student. Have each group take turns sharing their learning from the article. Have students fill in their own mind map with the shared ideas.
- Using their mind map and their own research on microplastics, have the students create an action plan to address the issue of microplastics in the water. Develop criteria for the action plan as a class.

Assessment

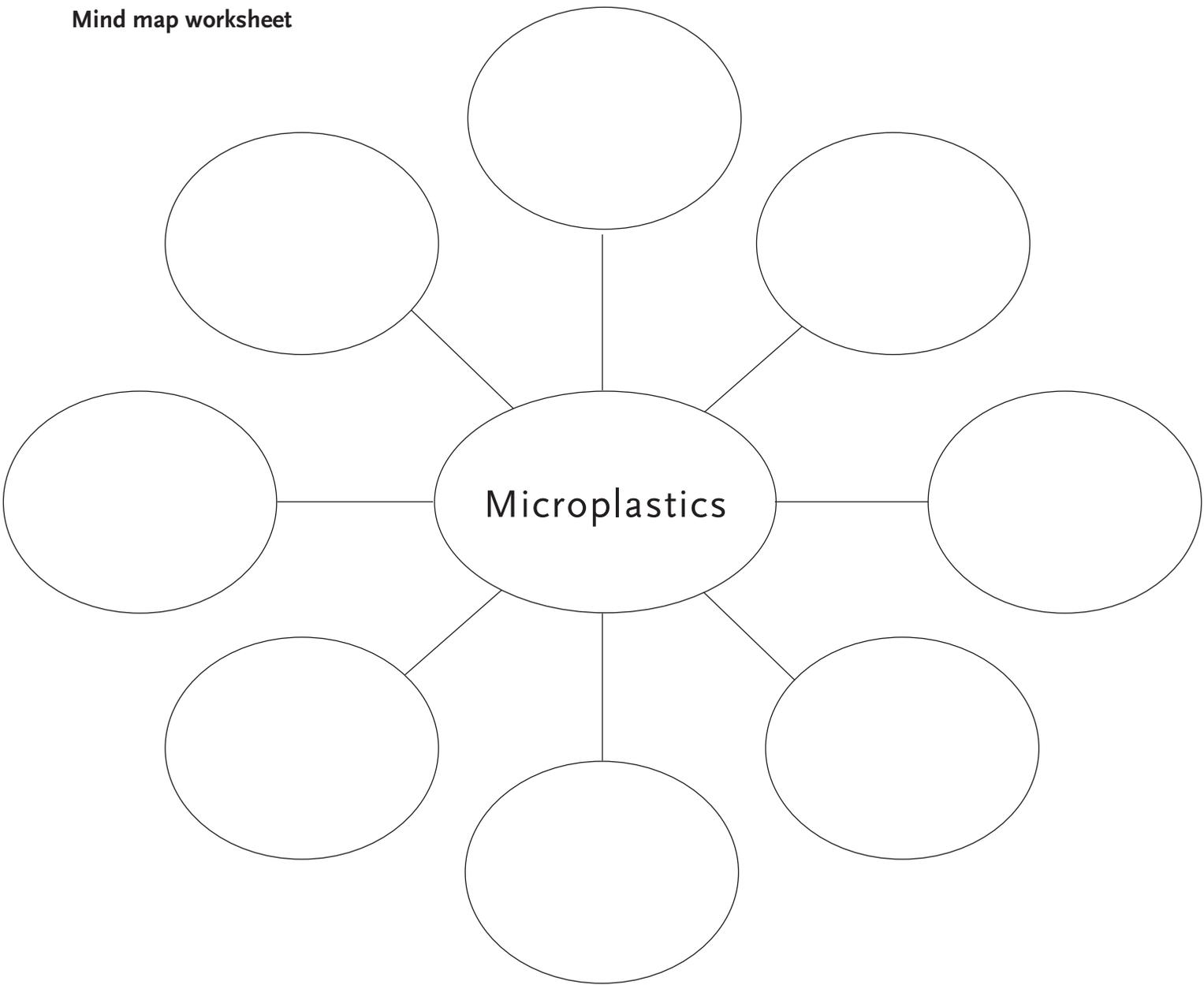
- During the “Minds On” activity, read/observe students' reactions on the sticky notes and engage them in brief discussions to check their previous knowledge. When students are working on their action plans, circulate to discuss their mind maps with them. Make anecdotal notes about their learning and revisit certain concepts if required. Evaluate their action plans based on the criteria you developed as a class and provide written or oral feedback.

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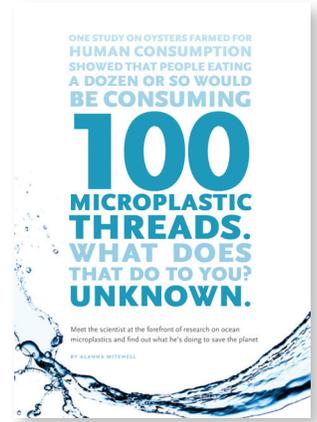


Mind map worksheet



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Action plan template

Microplastics are major pollutants with negative implications for the environment. What can we do to limit or eliminate microplastics? Who should do what? Why them?

What can...	Why them?
You do?	
Any citizen do?	
The government do? (Think of the different levels: municipal, provincial and federal)	
_____ do?	