

Grade 8 Overall Expectations

Overall Expectations	
Literacy	<ul style="list-style-type: none">❖ R 1. read and demonstrate an understanding of a variety of literary, graphic, and informational texts, using a range of strategies to construct meaning;❖ W 1. generate, gather, and organize ideas and information to write for an intended purpose and audience;❖ M 3. create a variety of media texts for different purposes and audiences, using appropriate forms, conventions, and techniques;
Math	<ul style="list-style-type: none">❖ B1. Number Sense - demonstrate an understanding of numbers and make connections to the way numbers are used in everyday life
Science	<ul style="list-style-type: none">❖ Understanding Earth and Space Systems 2. investigate factors that affect local water quality;
History	<ul style="list-style-type: none">❖ B3. Understanding Historical Context: describe various significant events, developments, and people in Canada between 1890 and 1914, and explain their impact

TAKE CARE OF YOURSELF!

School and school work is, usually, a way to develop the intellectual or mental part of ourselves. But we have other dimensions. We have a physical body, feelings, and a spirit (which you might be more comfortable thinking of as your “true” self.) We hope some of these suggestions, plus ideas of your own, will help you live in a way that supports not just your mental well-being and development, but your whole self. See if you can do something to support each aspect of yourself each day.

PHYSICAL WELL-BEING

To take care of your physical well-being, you might:

- Move around! (skip, do jumping jacks, do sit-ups, do push-ups, go for a walk, etc.)
- Eat healthy food.
- Drink water.
- Get rest.
- Listen to your body.
- _____

EMOTIONAL WELL-BEING

To take care of your emotional well-being, you might:

- Connect with somebody (call someone, talk to someone, sit with someone, etc.)
- Notice your feelings.
- Try to have compassion for yourself.
- Write something about what you are experiencing and how it makes you feel. Maybe share it.
- Create art. Maybe share it.
- Laugh.
- _____

SPIRITUAL WELL-BEING

To take care of your spiritual well-being, you might:

- Do something for someone else.
- Meditate, pray, perform ceremony, or spend some time taking deep breaths.
- Make something.
- Offer thanks. It could even be thanks to something non-human, like the water that you drink or the plants growing through the cracks in the sidewalk.
- Ground yourself. Notice and express gratitude to the things and people surrounding you.
- _____

MENTAL WELL-BEING

To take care of your mental well-being, you might:

- Enjoy a story. Read something, listen to a podcast or audio book, watch a movie or show.
- Listen to music that stimulates thoughts.
- Look at art you find engaging.
- Talk with someone you admire.
- Share your own observations or insights with someone you trust.
- _____

Where Am I Now?

I care about my community; I can express this care by sharing my values and beliefs about a community need.

LITERACY	
HISTORY/GEOGRAPHY	
READ	<ul style="list-style-type: none"> ❖ Read the glossary, this time focussing on the meaning of: <i>colonization, racism, environmental racism, power, privilege, oppression, policy</i> ❖ Before reading the text ask yourself, “<i>What do I know about colonization of North America?</i>” ❖ Read the excerpt from <i>Fighting Back: Resisting the Legacy of Environment Racism (pages 8-9)</i>. ❖ After you read, write your answers to the following questions: <i>What is the message? Which details in the text help you to determine the message? Whose point of view is represented? Which details in the text help you to identify the points of view? Are there any voices or perspectives missing? How might including these voices change the message?</i> ❖ Read the infographic, <i>Potable Water</i> from www.statcan.gc.ca (p.11) and answer the following questions: <i>What is the message? Which details or text features help you to determine the message? Whose point of view is represented and how do you know? Are there any voices or perspectives missing? How might including these voices change the message?</i>
CREATE	<ul style="list-style-type: none"> ❖ Define environmental racism in your own words. ❖ Create a mind map that illustrates how different communities are impacted by and respond to environmental racism. See page 12 for a sample mind map.
REFLECT	<ul style="list-style-type: none"> ❖ Using information from any text that you have read so far and your own ideas, write in full paragraphs your thoughts about people’s right to access clean water.

Where Am I Now?

I care about my community. I can express this care by sharing my values and beliefs about a community need.

LITERACY
HISTORY/GEOGRAPHY

EXTEND: There are many ways in which human settlement has negatively affected the environment. Read the article “Environment Education” (p.10).

1. Make a 3-column chart with the following headings for the first two columns: “Human Actions” and “Examples”.
 - ❖ List the following seven human actions in the first column:
 - water pollution from industry, agriculture, human waste
 - soil contamination from pesticides, industrial byproducts, garbage dumps
 - disruption of migratory routes of different species
 - air pollution from vehicle and industrial emissions
 - deforestation and loss of habitat from expanding settlement
 - loss of agricultural land to urban sprawl
 - light pollution from large cities
 - desertification from unsustainable agricultural practices.
 - ❖ Leave room for additional information you will record later.
 - ❖ In the second column, list examples from the article and others you have previously learned about.

2. Examine the seven human actions listed in the first column. These actions take place in numerous communities in Canada and around the world. In the third column, write the heading “Counter Action/Alternative Solution”. For each human action in the first column, record a human action that could counter the negative impact

Human Action	Examples	Counter Action/ Alternative Solution
water pollution from industry, agriculture, human waste	...	engaging in smaller scale, organic agriculture; using composting toilets

- ❖ Read the article “Fighting Back: Resisting the Legacy of Environment Racism” (pages 8-9). To extract means to “remove” or “take out”. Based on the information provided in the first and second paragraphs of the article, identify who extracted the natural resource of trees and why they did it. What was the impact on the local Indigenous community?
- ❖ There are numerous Indigenous water protectors like Judy DaSilva who are not accepting environmental racism; they are “Fighting Back.” List the acts of resistance DaSilva and other indigenous water protectors have engaged in by reading “Fighting Back: Resisting the Legacy of Environment Racism.”
- ❖ Over time, the term, “environmental justice” has changed to “environment racism.” Based on the article, why do you think there was a need to change the term? If you wanted to support the fight against environmental racism, what are different ways you could express your ideas?

Where Am I Now?

MATHEMATICS

<p>THINK</p>	<ul style="list-style-type: none"> ❖ <i>Why is water such an important resource? Think about the many ways you use water and the world uses water every day.</i> ❖ Write down the ways you use water in your daily life. Building on last week’s work, your ability to understand, use, and communicate numbers in a variety of ways is key to you recognising where a problem exists and how you can track change.
<p>ACT</p>	<ul style="list-style-type: none"> ❖ Read the infographic “Potable Water in Canada” (p.11). “Potable” means “safe to drink.” Using the infographic, you will investigate mean, and volume. ❖ How much water did the average Canadian household use in 2017? <ol style="list-style-type: none"> 1. How much water would an average household use in one month? How would you find out the answer? What other information do you need to answer the question? Try to answer it. <i>If you need help: 220 litres X 30 (number of days in a month)</i> 2. How much water would an average household use in six months? If you have completed question 1, there are two ways you can calculate the answer. Try both ways. Are the answers the same? <i>If you need help: One way is to multiply the answer from question 1 by 6; you could also multiply the number of days (30) by six (for the number of months) and then multiply that by 220 litres.</i> 3. How much water would an average household use in a year? If you have completed question 1, there are two ways you can calculate the answer. Are the answers the same? <i>If you need help: One way is to multiply the answer from question 1 by 12; you could also multiply 220 litres by 365 days (how many days there are in a year).</i> 4. We need to drink about 3 litres of water daily. We get a lot of water from the foods and other beverages we consume. The following amounts describe how much water one person consumed through eating foods and other beverages: <ul style="list-style-type: none"> • Breakfast $\frac{1}{4}$ of daily water consumed • Lunch $\frac{2}{5}$ of daily water consumed • Snacks 0.12 of daily water consumed • Dinner 20% of daily water consumed ❖ What fraction of water remains to be consumed to meet daily recommendations? How much of the 3 litres still needs to be consumed? Can you share the answer in litres? Now millilitres?
<p>REFLECT</p>	<p>Even though there are not a lot of numbers on the infographic, there is much that can be figured out from the numbers that are there. Look over the infographic again and think about what other information you could add to this infographic. What averages would you include? How would this information inform others about the importance of water for communities?</p>

Where Am I Now?

SCIENCE	
THINK	<ul style="list-style-type: none"> ❖ The water cycle describes how water moves through the world, constantly evaporating, collecting in clouds, coming back to the earth in rain, snow, etc. but what is the cycle of water to your home and back again? ❖ Brainstorm all the steps you think are involved to have potable (safe to drink) water.
ACT	<ul style="list-style-type: none"> ❖ Read the description of how clean water gets from Lake Ontario to your tap. ❖ After you have read the description, create a labeled drawing of all the steps water takes to get to your tap. <p>How Water treatment works</p> <ul style="list-style-type: none"> ❖ Water is collected from Lake Ontario through intake pipes deep below the lake and one to five kilometres away from shore. ❖ Lake water passes through screens to remove large debris and then through filters to remove additional impurities. Water is disinfected by using either chlorine or ozone. ❖ Alum or Poly Aluminum Chloride is added to the water to form a jelly-like substance that joins larger particles called floc, and goes through additional filtration. ❖ The water travels through settling basins so larger particles settle to the bottom. The clear water at the top proceeds to filters containing gravel, sand and carbon to remove suspended impurities and bacteria. ❖ Before water is pumped for distribution to homes and businesses, the following is added: <ul style="list-style-type: none"> • chlorine to destroy bacteria, algae and viruses • fluoride to help prevent tooth decay • ammonia to ensure chlorine levels remain consistent as water travels through the distribution system • phosphoric acid, which is used for corrosion control to help create a barrier between residential lead pipes and drinking water <p>City of Toronto (2020 May 17) Tap Water in Toronto. (excerpt) Retrieved from https://www.toronto.ca/services-payments/water-environment/tap-water-in-toronto/</p>
REFLECT	<ul style="list-style-type: none"> ❖ Think about how this process of cleaning water is constantly happening and what it means for people to not have potable water. ❖ Going back to your drawing, consider the parts of the water treatment process where people could be quite sick if the cleaning did not occur. Keep these ideas in your mind and think about what responsibility each of us has to make sure there is clean water for everyone.

Where Am I Now?

Glossary

beliefs: something that is held as true or real; a firmly held opinion

values: a person's standards for behaviour; a person's judgements about what is important in life

strengths: a person's beneficial qualities; attributes that are a source of support

talents: skills, abilities or gifts; all people have them

identity: who you are and how you think about yourself; a person's defining qualities, beliefs, characteristics

colonization: the action of settling among and attempting to establish control over Indigenous people of a region for the purpose of exploiting natural resources to gain profit and power

racism: prejudice and discrimination rooted in a belief that one racialized group is superior to another; hatred and violence directed racialized groups (e.g. anti-black racism)

power: authority or ability to control; the ability to influence

privilege: A special benefit that is available only to a particular person or group; not earned

oppression: the use of power to disempower, marginalize, silence or otherwise subordinate one social group or category, often in order to further empower and/or privilege the oppressor.

policy: a course of action adopted by an organization such as a government

Where Am I Now?

Fighting Back: Resisting the Legacy of Environment Racism

By Joanne Formanek Gustafson

When I get my farm back, my boy, when I get my farm back.” These are the words that my great-grandfather Rory McPherson often said to his grandson (my uncle) as they sat together at their home in the community of Gojijiing (anglicized as Couchiching First Nation) in the 1940s and 50s. As a young man, Rory had a farm on the Rainy River, downstream about 40 km, but had been forced to relocate to reserve lands “designated for the Indians” in the late 1800s. (Note: ‘Indian’ is the terminology of the treaties and of the Indian Act, and is used in this context.) After Treaty 3 was signed in 1873, colonization led to the dispossession of my great-grandfather’s farm. As the settler population in the area increased, lands occupied by Indigenous peoples were claimed for industry, settlements and farming. Resource extraction began first with forestry for building materials and then for papermaking. Around 1900, a dam was built on the Rainy River at Fort Frances to provide water for a papermill. This affected the way of life of Anishinabek (Ojibwe people) living on the connected lakes and rivers, flooding traditionally used lands and displacing the Anishinaabeg yet again as people were moved to new reserve sites.

Since 2010, Couchiching has been advocating for cleanup of a site contaminated by sawmill operations nearly 100 years ago. It had been leased by Indian Affairs for almost 100 years and used for commercial and industrial activities by non-Indigenous businesses. I hear similar stories about Indian reserves across Canada and the environmental impacts that have had (and continue to have) devastating effects on the people and their communities. A particularly tragic story is that of the Anishinaabe communities of Asabiinyashkosiwagong Nitam-Anishinaabeg (Grassy Narrows First Nation) and Wabaseemoong (White Dog) Independent Nations in northwestern Ontario.

...

When I look at Canada’s history through the lens of environmental racism, it becomes apparent that Indigenous communities aren’t the only ones affected; other groups of racialized people are also disproportionately affected. This understanding helps contextualize the environmental events plaguing Asabiinyashkosiwagong Nitam-Anishinaabeg (Grassy Narrows First Nation) and Wabaseemoong (White Dog) Independent Nations in northwestern Ontario, which started over 50 years ago at the pulp and paper mill in Dryden, Ontario. The mill lies approximately 150 km from the Manitoba border on the Trans-Canada Highway. Between 1962 and 1970 Dryden Chemicals and Reed Paper Limited dumped 9,000 kg of mercury into the English River, polluting the English-Wabigoon water system where these communities got their water and fished both for their families and to make a living at commercial fishing. By 1970, the effects of mercury contamination ended commercial fishing and the effects of mercury poisoning (called Minamata disease) were showing up in community members. Several generations of Anishinaabe people from these communities suffer from mercury poisoning, with estimates indicating that 90 percent of residents are affected.

Mercury, it turns out, is a particularly nasty contaminant. Its effects on the environment, including living organisms, are devastating and irreversible. When it enters the environment, mercury changes into its most toxic form, methylmercury, working its way up the food chain from organism to organism through consumption. Mercury is not excreted; it accumulates in the human body affecting the brain, kidneys, lungs and skin. Symptoms of mercury poisoning include red cheeks, fingers and toes; rapid heartbeat and high blood pressure; loss of hearing and vision; memory loss; speech problems; loss of teeth, hair, and nails; and birth defects. Mercury is passed to unborn children in utero.

Where Am I Now?

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Despite years of requests, the communities have found no help from either the company or the government. Dealing with the physical and psychological effects of this environmental disaster for more than 50 years, the Anishinaabeg have continued to advocate for the clean-up of the river and for the health needs of their people.

Speaking Out

Finally, in 2016, a former papermill worker broke the silence about mercury dumping in Dryden. The government admitted to knowing about mercury disposal at the mill, but incredibly, still maintained that the mercury wasn't the source of the contamination. Chief Simon Fobister of Asabiinyashkosiwagong told the CBC, "I am shocked and dismayed by Ontario's failure to protect our people who live downstream from this reported toxic mercury dump." Fobister continued to advocate for his community as his body deteriorated. After his death in 2018, his family vowed to continue his advocacy

Judy DaSilva, another lifelong advocate from Asabiinyashkosiwagong, is a water protector.

...

DaSilva is part of a community of Indigenous women worldwide who advocate for water; their ranks include respected women such as Josephine Mandamin (who passed in 2018) and 15-year-old Autumn Peltier of Wikwemikong who has received international recognition for her work. The work of these women transcends race and political boundaries.

The youth of Asabiinyashkosiwagong are no strangers to activism. In 2002, youth built a blockade on their territory to stop clear cut logging. They regularly participate in events and rallies; in 2019 they led the River Run Event in Toronto. The work being done in this community has attracted the attention of the Pulitzer Centre, an award-winning, non-profit news organization that partners with journalists and newsrooms to support in-depth reporting on critical global issues.

This has led to a project called Generations of Activism: The Grassy Narrows First Nation's Fight for Clean Water. They've also used the arts to express community in the song Home to Me developed in 2016 with the support of the N'we Jinan Artists youth empowerment and education program. The video, available on YouTube, sends a powerful message about the students' love of their community and the land.

Today, both communities continue to advocate for the cleanup of their traditional lands. Although both levels of government made commitments in 2017 to address these issues through remediation of the water system (provincial) and building a health facility in the community (federal) there has been no definitive action to date. A youth-led campaign for mercury justice was one of the focal cases of last month's global Write for Rights campaign. A new generation of young people are undertaking advocacy with the knowledge that this is a life-or-death situation. The story is far from over for the people from Asabiinyashkosiwagong.

Excerpt from Fighting Back: Resisting the Legacy of Environment Racism
Joanne Formanek Gustafson. Fighting Back: Resisting the Legacy of Environment Racism. ETFO Voice. Spring 2020

Where Am I Now?

Environment Education

Environmental education must include the understanding that everyone should have access to a healthy environment. While the term Environmental Racism (Environmental Justice) has been around since the 1970s and 80s, it is an important topic that needs to be understood and addressed in today's classroom. Globally, including in Canada, people living in racialized and low-income communities are much more likely to come in contact with hazardous materials. The global environmental movement implores us to acknowledge that environmental racism is happening every day and that we are all at risk when we turn the other way. Some examples of past and present case studies around the world and in our own backyards include:

Africville in Nova Scotia – Africville is a historic predominantly Black community in Halifax. Before being condemned and demolished in the late 1960s, this community was in desperate need of basic services such as water, roads and sewage which the city failed to provide. The City of Halifax built a toxic waste dump and a hospital for diseased and infectious World War II soldiers near the community and community members are protesting these injustices to this day.

Residents of Aamjiwnaang First Nation and Chemical Valley – This reserve is surrounded by petroleum plants and refineries. About half of Chemical Valley's industrial facilities are situated within approximately 5 km of the reserve. This has significant and profound effects on the health and living conditions of the people in this community.

The fight for access to clean water among many Indigenous communities in Canada – Let the facts speak for themselves. According to The Council of Canadians Acting for Social Justice, there were 174 drinking water advisories in over 100 Indigenous communities in the month of May alone. Seventy-three percent of the water systems of Indigenous communities are at high or medium risk of contamination. This is a chronic problem in many Indigenous communities and yet a solution seems an abstract concept.

Excerpt from Engagement and Environmental Education
Kimberly Maich. Engagement and Environmental Education. ETFO Voice. Spring 2020

Where Am I Now?

Potable Water Use in Canada

POTABLE WATER USE IN CANADA

LITRES PER CAPITA PER DAY (LPCD)

TOTAL AVERAGE DAILY PER CAPITA POTABLE WATER USE IN CANADA



Industrial
(Manufacturing)



Commercial
(Office buildings, shopping centres, restaurants, etc.)



Residential



Institutional and other non-residential
(Schools, hospitals, municipal/provincial/federal facilities)



Losses from the distribution system
(Water system maintenance, leaks, other water losses)

TOTAL LPCD IN THE ECONOMY

2011	2013	2015	2017
485	460	446	427

RESIDENTIAL AVERAGE DAILY PER CAPITA POTABLE WATER USE IN CANADA



Drinking and food preparation



Bathing and showering



Brushing teeth



Flushing toilets



Washing hands



Washing clothes



Washing dishes



Washing floors etc.



Washing cars and other items



Watering lawns and gardens during warmer months



Maintaining pools and hot tubs



Other miscellaneous (watering indoor plants, aquariums, etc.)



Humidifiers



Leaky fixtures and pipes



Running water to prevent lines from freezing in winter

RESIDENTIAL LPCD

2011	2013	2015	2017
251	222	234	220

Source: Statistics Canada, Environment, Energy and Transportation Statistics Division, Biennial Drinking Water Plants Survey.

Results are based on drinking water treatment plants that draw and process source/raw water from the environment to produce treated/potable water for consumption, serving 300 or more people.

Total LPCD = total average daily per capita potable water use in Canada.

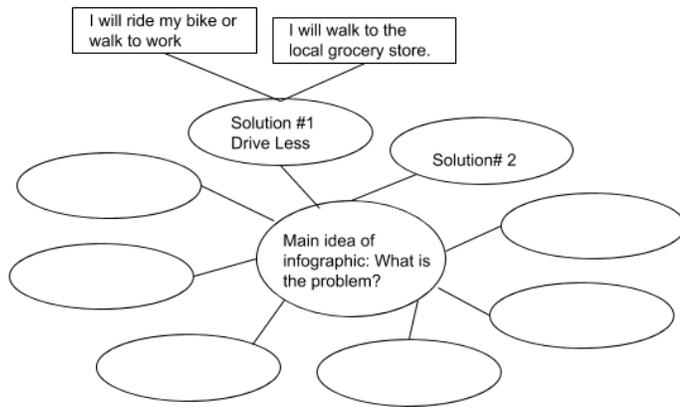
Residential LPCD = residential average daily per capita potable water use in Canada.

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Where Am I Now?

Mind Map Exemplars

Sample Mind Map & Paragraph (Copyright TDSB, 2020)



Sample Paragraph - Explanatory By anonymous

Climate change is something that affects all of us. One belief that I learned from my family is that we are interconnected and so we are responsible for working towards justice - in this case, environmental justice. My values about living responsibly and trying not to cause harm, challenge me to change my behaviour. One positive action that I can take to reduce carbon emissions is to drive less. In order to accomplish this, I will walk, cycle or take public transportation to work and I will walk to and shop at the local grocery store. From the time that I was a child, my family and community taught me that seeking justice often requires that I give something up. Driving less will require that travelling to work and grocery shopping will take more time and effort but this will help me to live in harmony with my personal and family beliefs and values.