

Water Treatment Process	Grade 8 Science – Science
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<h2 style="margin: 0;">Lesson Plan</h2>	Cross Curricular	Computational Thinking
	Safety Notes	N/A

<p><b>Big Ideas</b></p> <ul style="list-style-type: none"> <li>Investigate factors that affect local water quality.</li> </ul> <p><b>Learning Goals</b></p> <ul style="list-style-type: none"> <li>Students will learn about the process in which municipalities process and distribute water</li> <li>Students will learn about computational thinking.</li> <li>Students will design and create an Ozobot model to illustrate the process municipalities use to process and distribute water.</li> </ul>	<p><b>Specific Expectations</b></p> <ul style="list-style-type: none"> <li>Students will investigate how municipalities process water (e.g. obtain it, test it, and treat it) and manage water (e.g., distribute it, measure consumption, and dispose of waste water).</li> <li>Students will use a variety of forms (e.g., oral, written, graphic, multimedia) to communicate with different audiences and for a variety of purposes.</li> </ul>
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**Description**  
 Students will learn about the process in which municipalities use to process and distribute water while designing and creating a map to illustrate the process with a coded Ozobot.

<p><b>Materials</b></p> <ul style="list-style-type: none"> <li>Ozobot Evo</li> <li>Ozobot Coloured Markers</li> <li>Tablet or Computer</li> <li><i>1A Grade 8 Water Treatment Process Engage and Explore Handout</i></li> <li><i>1B Grade 8 Water Treatment Process Ozobot Evo Explore Explain Elaborate PowerPoint</i></li> <li><i>1C Grade 8 Water Treatment Process Elaborate Handout</i></li> <li><i>1D Grade 8 Water Treatment Process Evaluate Handout</i></li> <li>Internet (Optional)</li> <li>Textbook (Optional)</li> </ul>	<p><b>Accommodations/Modifications</b></p> <p>Students have the opportunity to type, verbally record with speech-to-text software, and draw their answers.</p>
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## Introduction

- Educators will begin the **Engage** phase of the lesson by directing students to work with a partner to complete the Engage section of the *1A Grade 8 Water Treatment Process Engage and Explore* handout.
- Students will work with a partner to write down ideas on how they think drinking water is processed. Students will include drawings for each of the ideas they write down.

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## Action

- Educators will introduce the **Explore** stage of the lesson by projecting the *1B Grade 8 Water Treatment Process Ozobot Evo Explore Explain Elaborate* PowerPoint on the projector.
- Students will complete the **Explore** section of the *1A Grade 8 Water Treatment Process Engage and Explore* handout by collaborating with a partner to design an Ozobot map that will show their ideas on how water moves from a source, such as a lake, to the taps in the school.
- Educators will begin the **Explain** stage by sharing *1B Water Treatment Process Ozobot Evo Explore Explain Elaborate* PowerPoint with students and on the projector.
- Educators will explain the process of Water Treatment and Water Distribution while moving through the *1B Water Treatment Process Ozobot Evo Explore Explain Elaborate* PowerPoint on the projector.
- Students will complete the **Elaborate** phase of the lesson by creating an Ozobot map that illustrates the Water Treatment Process.
- Students will use the following resources to design and create the Water Treatment Process Ozobot map:
  - *1B Grade 8 Water Treatment Process Ozobot Evo Explore Explain Elaborate* PowerPoint
  - *1C Grade 8 Water Treatment Process Elaborate* handout
  - Lethbridge Water Treatment Process video:  
[https://www.youtube.com/watch?time\\_continue=266&v=gsq7SBfKjfw](https://www.youtube.com/watch?time_continue=266&v=gsq7SBfKjfw)
  - Lethbridge Water Treatment Plant Website: <https://www.lethbridge.ca/living-here/water-wastewater/Pages/How-we-treat-our-water.aspx>

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## Consolidation/Extension

- Educators will **Evaluate** students with the *1D Grade 8 Water Treatment Process Evaluate* handout.
  - Students will collaborate with their partner to answer the questions on the Water Treatment Process.
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