

Lesson Plans for Food Waste



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Closed Loop Food System: Lesson Plan Ideas

Ideas	Teacher's activity	Student Activities
<p>Dirt: A Universe</p>	<p>Big Ideas:</p> <ul style="list-style-type: none"> · Why is dirt important for us? · Is soil renewable, how much soil are we losing in Toronto? · How do you keep soil healthy? · Soil types in Toronto? · What is in a tablespoon of soil? (talk about fungus, bacteria, bugs etc) · What is soil erosion and what is the impact? <p>Introduction: Discuss with the students about the role of dirt, as the foundation of food and civilization.</p> <p>Learning about the different types of dirt. Materials needed:</p> <ul style="list-style-type: none"> · Bucket · Container with lid (e.g yogurt container) · Digging tool (small hand shovel for sand) · Labelling supplies for dirt samples (marker, label stickers) <p>Try to find different types of dirt:</p> <ul style="list-style-type: none"> · Hard packed · Loose soil · Gravel · Sand · Clay <p>Encourage students to discuss what they observed with the dirt samples.</p> <p>Play a Game: Plants vs. Dirt (pun on Plants vs. Zombies) Match the plants with the best soil types. Show pictures of plants and talk about how different plants are best grown in certain types of soil</p>	<p>Gather some dirt samples in the container from different parts of the school;</p> <p>Put each type of dirt in its own container and label where you found it.</p> <p>Write out the type of dirt, its texture and colour.</p> <p>Release any living creatures you find in your dirt samples.</p> <p>Play the "Plants vs. Dirt" and match the plants with the best soil type.</p> <p>Discuss about dirt samples and keep the samples for the next session.</p> <p>Celebrate Toronto's Urban Agriculture Day! (September 15th 2017)</p>

<p>Compost Café!</p>	<p>Plan a field trip to nearby café and pick up some coffee ground.</p> <ol style="list-style-type: none"> 1. Integrate learning from first lesson about keeping soil healthy 2. What is in a coffee that makes the soil healthy? <p>Activities: Measure soil PH with baking soda and vinegar/ or with cabbage waste</p> <p>Source: http://preparednessmama.com/testing-your-soil-ph-without-a-kit/</p> <p>Compare the soil mixed with coffee ground and the other soil samples you collected</p>	<p>Travel to coffee shop</p> <p>Making a PH test baking soda and vinegar solutions</p> <p>Document the PH level and observe the experiment</p> <p>Compare the different soil samples: sandy, clay, loose</p>
<p>All My Relations & The Three Sisters</p>	<p>Indigenous “All My Relations” teaching Potential guest speaker: First Story Toronto?</p> <p>What is the philosophy of “All My Relations”?</p> <ol style="list-style-type: none"> 1. What is a medicine wheel? 2. What are the three sisters? (corn, bean and squash) 3. Why is it good to plant the three sisters? 4. What type of soil is good for the three sister 5. What does wasting food mean in the context of “All My Relations”? <p>Activities:</p> <ol style="list-style-type: none"> 1. Plant the three sisters (sprout it) 2. Draw a medicine wheel 3. On another sheet of paper write a short essay who are your relations far and wide?(include human and non-human relations). What does it mean when you waste food? 	<p>Learn about the important role of human and non-human relations in the Indigenous philosophy of “All My Relations”</p> <p>Learn the story about “the three sisters”</p> <p>Draw a medicine wheel</p> <p>Write a short essay about your relations (human and non-human) and explain what food wasting means in the context of “All My Relations”</p>

<p>Track your Food Waste</p>	<p>Learn all about avoidable, non-avoidable and potentially avoidable food waste</p> <p>In Class: Categorize the Food Waste Get the students to sort and discuss what is avoidable, non-avoidable and potentially avoidable food waste. Depending on cultural background, it would also be interesting to figure out the differences.</p> <p>Materials:</p> <ol style="list-style-type: none"> 1. Pictures of egg shell, apple core, orange peel, broccoli stalk, chicken bone, fish head, potato skin etc 2. Have a hand out with categories: avoidable, non-avoidable, and potentially avoidable food waste <p>Prompts:</p> <ol style="list-style-type: none"> 1. Have students sort and discuss why they categorized the food into a particular category. 2. Discuss whether the categories can move around. For example, broccoli stalk , potato skin can actually be eaten if cooked differently (get them to think creatively) <p>Activities: Food Waste Diary Keep a food diary for one week and track your lunch waste:</p> <ol style="list-style-type: none"> 1. Handout with a table where students can write out anything they wasted in the 5 days. 2. They need to categorize if it was avoidable, non-avoidable and potentially avoidable 3. How can they reduce their food waste? 	<p>Categorize food waste into the different categories</p> <p>Discuss reasons for the category choice</p> <p>Think about how some food waste categories can be moved around to prevent food waste</p> <p>Fill out the food waste diary</p> <p>Categorize the food that was wasted during lunch</p> <p>Figure a plan to reduce the waste for the following week.</p>
<p>Mission: Food Waste Reduction</p>	<p>Get students to individually or in a group come up with a food waste awareness campaign for the school.</p> <p>Resource: lovefoodhatewaste.com</p>	<p>Make a poster that will encourage fellow students at the school to waste less food</p> <p>Analyze food packaging and</p>

	<p>campaign</p> <p>Watch video on Best Before Date: https://vimeo.com/61028395</p> <p>Activities: Create a fun and educational poster! (Post at School Lunchroom as a Gallery)</p> <p>Materials:</p> <ol style="list-style-type: none"> 1. Markers 2. Bristol board, or poster paper 3. Glue 4. Arts and crafts materials <p>Food Packaging Analysis</p> <ol style="list-style-type: none"> 1. Analyze best before dates on food packaging. Students can be asked to bring one food packaging with a BBD 2. How does the best before date labelling contribute to food waste <p>In the class:</p> <ol style="list-style-type: none"> 1. Discuss different ways to reduce food waste: meal planning, portioning, repurposing, sharing 2. Discuss best before dates and food safety <p>Outside of the class:</p> <ol style="list-style-type: none"> 1. Students will get a certificate/ stickers for speaking to at least 5 people about reducing food waste (document who the spoke to, and write up their experience 	<p>document the best before date. Is it clear?</p> <p>Answer the question of how best before date labelling contribute to food waste?</p>
<p>Why Should I Care? Environmental, Economic and Social Impact of Food Waste</p>	<p>Environmental, Economic, Social Impact of Food Waste</p> <p>Food Journey: Watch the Video “The Extraordinary Life and Times of Strawberry “ https://www.youtube.com/watch?v=WREXB-UZBrS8</p> <p>Environmental impact of wasted food https://vimeo.com/54855283</p>	<p>Watch the video</p> <p>Taste the strawberries</p> <p>Answer the questions about the strawberry journey</p> <p>Document the different stages of the food supply chain</p> <p>Learn about eco-footprint, and</p>

	<p>Activity: Strawberry tasting</p> <p>Answer questions:</p> <ol style="list-style-type: none"> 1. When the strawberries were wasted what other resources were wasted? 2. What are the different stages of the food supply chain that the strawberry passed through (farm, retail, home) 3. Draw a strawberry supply chain 4. How can you save the strawberries for being wasted? 5. What can strawberries be made into? <p>Learn about eco-foot print, long-distance and short-distance food supply chain.</p>	<p>compare long-distance and short-distance of food supply chain</p>
<p>Worms, Worms, Worms (How to vermicompost)</p>	<p>How can food scraps be sustainably managed in a circular economy (closed loop food system)?</p> <p>Guest Speaker: Tammara Soma (Food Systems Lab, University of Toronto) TBC</p> <p>Activities: Learn how to vermicompost</p> <p>Materials</p> <ol style="list-style-type: none"> 1. Old newspapers (ripped up) 2. Water 3. Food scraps (chopped up apple skin, broccoli, carrot skin) 4. Rubber bin (poke holes) 5. Red wigglers worm <p>Discussion:</p> <ol style="list-style-type: none"> 1. What are the role of worms in the food system? 2. How do you use vermicompost? 	<p>Rip up the newspapers</p> <p>Spray the water on the ripped up newspaper</p> <p>Poke the rubber bins and make breathing holes for the worm</p> <p>Put the chopped food in one side of the bin</p> <p>Put the worms in the bin under the newspapers</p> <p>Discuss the role of worms and the use of vermicompost</p>
<p>Letter Campaign</p>	<p>Develop a letter writing and or social media campaign to get the attention of policymakers.</p> <p>Activities</p> <ol style="list-style-type: none"> 1. Write a letter to your City Councillor 	<p>Write a letter</p> <p>Include important information that you have learned about food waste</p> <p>Provide solutions and ideas on how</p>

	<p>and the Mayor</p> <p>2. In the letter include the following information:</p> <ul style="list-style-type: none">• Why is food waste an important issue• What the students hope for Toronto• Ideas on reducing food waste	<p>Toronto can reduce food waste based on a circular economy/ closed loop food system</p>
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