# Inquiry Lesson Plan

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| **Lesson Title:** | Recreate the Waste  | **Lesson #** | 4 | **Date:** | 14/4/2021 |
| Name: | Swanshi Dulani | Subject(s): | Environmental Science | Grade(s): | 11 |

Lesson Rationale & Overview

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| **Why does this topic matter to students?**This topic will encourage the students to incorporate what they have learnt about the important concepts of Rethink, Reduce, Reuse and Recycle from the lessons in previous days to engage in the new notion of recreating. The emphasis is on letting students reflect on their own learning process and recreate any one useful thing from the waste. **How does this lesson fit within the larger inquiry project?**This is the last lesson of the inquiry project that will allow the students to identify waste that can be utilized and recreated rather than simply disposing it off. Now, students are at the last stage of this ‘Zero Waste Challenge’ by having a better idea of waste reduction practices that people have been following in the surroundings or world, particularly, gaining an insight about the sustainable grocery stores. This lesson will provide them with an opportunity to put their learning into practice. **How does this lesson incorporate the inquiry cycle?**This lesson integrates the inquiry cycle by facilitating students to work in groups and recreate any one thing from the waste. As this is the last lesson plan of this inquiry project, students will be able to showcase their learning by progressing from ask, investigate, think, discuss to reflect and recreate. Furthermore, the idea behind this lesson plan is to nurture the creativity of the students which is a crucial aspect of the inquiry process.  |

Key Questions For Inquiry About the Topic of Study

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| Core Question for Inquiry Project | Supporting Question(s) in This Lesson |
| How students can contribute to sustainable environment by employment zero waste practices?  | Is it possible to survive without producing any waste?What are some alternatives to waste generation?How can waste be recreated into something useful?  |

**Inquiry Approach/Style and Rationale**

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| For this inquiry project, I have adopted ‘Guided Inquiry’ to help the students make connection with their own learning by acting as a guide or facilitator. The focus is to nurture curiosity among learners and engage them in a deeper understanding of the concepts that inspires them to take initiative towards well-being of the self, others, community and world.  |

Core Principles of Effective Teaching. Describe two or more core principles in each lesson.

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| **Core Principle 1:** Effective teaching practice begins with the thoughtful and intentional design of learning that engages students intellectually and academically.*\*\*How is the inquiry focused on building disciplinary knowledge and understandings?* |  |
| **Core Principle 2:** The work that students are asked to undertake is worthy of their time and attention, is personally relevant, and deeply connected to the world in which they live.*\*What makes this inquiry valuable, meaningful, and “alive” for the students and teachers?* | The given inquiry project that revolves around the idea of zero waste challenge will encourage creativity among students and teachers to challenge their own thinking regarding the integration of zero waste practices. This inquiry is valuable, meaningful and alive for the students and teachers as they will able to critically reflect and choose the best zero waste practices to apply in maintaining the sustainability of the environment.  |
| **Core Principle 3:** Assessment practices are clearly focused on improving student learning and guiding teaching decisions and actions.*\*How do I define learning and success in this inquiry? How is learning expressed and articulated in peer, self and teacher assessments?* |  |
| **Core Principle 4:** Teachers foster a variety of interdependent relationships in classrooms that promote learning and create a strong culture around learning.*\*How do I connect students with each other, with experts in the field, with larger communities and nature, and across disciplines?* |  |
| **Core Principle 5:** Teachers improve their practice in the company of peers.*\*How do I reflect on the inquiry together, and/or collaborate with others?* | Teacher will facilitate the students to collaborate with their peers and showcase their creativity by recreating something useful from the waste. This will provide them to reflect upon their own waste generation and improve the same by indulging in critical and collaborative thinking.  |

BC Curriculum Core Competencies

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| Communication | Thinking | Personal & Social |
| **Collaborating**Students will combine their efforts with those of others to effectively accomplish learning and tasks. As members of a group, they appreciate interdependence and cooperation, commit to needed roles and responsibilities, and are conscientious about contributing. They will negotiate respectfully and follow through on plans, strategies, and actions as they share resources, time, and spaces for collaborative projects. | **Creative Thinking** Students will think creatively and are curious and open-minded, have a sense of wonder and joy in learning, demonstrate a willingness to think divergently, and are comfortable with complexity. They will reflect on existing ideas and concepts; use imagination, inventiveness, resourcefulness, and flexibility; and are willing to take risks to go beyond existing knowledge. | **Social Awareness & Responsibility**Students will develop awareness of and take responsibility for their social, physical, and natural environments by working independently and collaboratively for the benefit of others, communities, and the environment. They demonstrate aware of the impact of their decisions, actions, and footprint; by advocating for and act to bring about positive change. |

BC Curriculum Big Ideas (STUDENTS UNDERSTAND)

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| Human beings can reduce waste in all facets of daily living, creating the solutions to the many environmental challenges we face including climate change, water pollution and preservation of natural resources. |

BC Curriculum Learning Standards

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|  **(STUDENTS DO)** | **(STUDENTS KNOW)** |
| Learning Standards - Curricular Competencies | Learning Standards - Content |
| [Processing and analyzing data and information](https://curriculum.gov.bc.ca/curriculum/science/11/environmental-science)* Experience and interpret the local environment
* Analyze cause-and-effect relationships

[Applying and innovating](https://curriculum.gov.bc.ca/curriculum/science/11/environmental-science)* Contribute to care for self, others, community, and world through individual or collaborative approaches
* Co-operatively design projects with local and/or global connections and applications
 | * Learning about a town, Kamikatsu, Japan that employs zero waste practices
* Knowing, understanding and applying some zero waste practices
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BC Curriculum Indigenous Connections/ First Peoples Principles of Learning

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| *How will I incorporate Indigenous knowledge and principles of learning?* I will inspire the students to acknowledge and create respectful relationships with the local environment by focusing on the following first peoples principles of learning:* Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place).
* Learning involves recognizing the consequences of one’s actions.
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Respectful Relations: Inclusion, Personalization and Diversity

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| *How will I invite students of all backgrounds, interests and skills into the inquiry?*`The students will be encouraged to brainstorm and think of how they can integrate zero waste practices with relation to the surroundings they live in. They will work collaboratively to integrate the idea of recreate from waste. During this process, they will bring in their own perspective and share the knowledge that they possess from their surroundings with their peers. The pool of diverse ideas within the classroom will make the process of inquiry more engaging, inclusive and meaningful.  |

Lesson Activities

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| Time Allotted | Teacher | Students | Assessment Activities |
| Invitation: Ask | 5 minutes | Teacher will invite the students to watch the video ‘Zero Waste Town’.  | Students will watch the video and record their observations and learnings from the video.  |  |
| Inspire  | 10 minutes  | Teacher will inspire the students to choose any 2 best practices that inspired them to rethink and recreate zero waste practices.  | Students will pen down their learnings about what inspired them the most.  | **Think, Pair and Share**Students will share their learning with the peers. Moreover, they will be encouraged to think about any zero waste practices that they have observed, experienced or integrated within their own communities or surroundings.  |
| Create  | 20 minutes | Teacher will invite the students to indulge in creative thinking and apply the same to recreate something useful from the waste.For e.g. utilizing leftovers with the idea of waste-free lunch, recycling the waste papers, etc.  | Students will collaborate with their peers and perform this activity in the group of 4-5.  |  |
| Present, Discuss and Reflect | 10 minutes | Teacher will allow the students to present their creation with their peers.  | Students will give a group presentation of the same. For this activity, they can attach audio-visual media to give a description, present any artefact to showcase what they have recreated, etc.  | **Reflection Time** Students will write an individual reflection about their journey of learning that revolves around the idea of zero waste challenge. In addition to this, they will be asked to discuss how their perspective of a sustainable environment has transformed.  |
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**(This lesson plan will indulge the learners into the inquiry process for a week.)**

Materials and Resources (use APA citation format)

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| How this town produces no trash. (n.d.). Waste Reduction Week in Canada | Waste Reduction Week in Canada. <https://wrwcanada.com/en/get-involved/resources/municipalities/how-town-produces-no-trash> |

Organizational Strategies (Optional)

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Proactive, Positive Classroom Learning Environment Strategies (Optional)

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