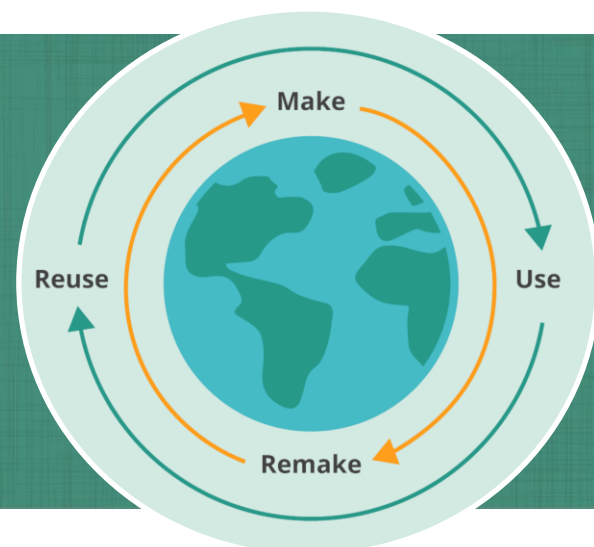


Plastic Waste to Consumer Goods

#Eco360
Activity
Grade Level: 9-12



Main Objectives

Learners will explore ways in which plastic waste can be repurposed to create consumer goods. Learners will complete a make- remake activity where they will go through a design challenge to make something new out of recycled plastic.

Learning Outcomes

By the end of this activity, learners will:

- Describe how plastic can be recycled to make consumer goods in a circular economy
- Identify innovative ways in which plastic can be utilized to make consumer goods

Curriculum Connections

Alberta

Biology 30 Unit D: Population & Community Dynamics

- 30-D2.1sts explain why Canadian society supports scientific research and technological development to facilitate a sustainable society, economy and environment

Social 10-1

- 3.7 explore multiple perspectives regarding the relationship among people, the land and globalization (spirituality, stewardship, sustainability, resource development)

Ontario

Grade 9 Geography

- C1. The Sustainability of Resources: analyse impacts of resource policy, resource management, and consumer choices on resource

sustainability in Canada

- E1. The Sustainability of Human Systems: analyse issues relating to the sustainability of human systems in Canada

Length of Activity

1.5 - 2 hours

Materials List

Internet-enabled device

Topic backgrounder

Eco 360 notebook (we recommend asking learners to maintain a notebook for this program to write down reflections as they go through the program)

Discarded plastics

Other craft tools as needed for the make-remake activity (scissors, glue, tape, paper, markers, etc.)

Step 1: Begin by conducting a thought experiment with your learners

Pose the following question:

- “What can we make out of discarded plastics that can be used in our daily lives?”
- Have a discussion in class and note down all the ideas that learners share on the whiteboard or a virtual board for everyone to see. We recommend using Jamboard.

Step 2

Put learner ideas into different categories of consumer goods on the whiteboard, such as:

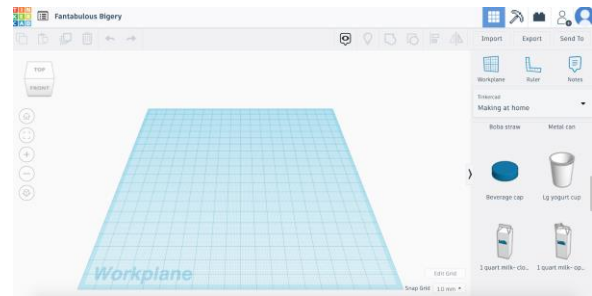
- Apparel (clothes, shoes, bags, etc.)
- Kitchen items

- c. Bathroom toiletries
- d. Grocery items (shopping bags, containers, etc.)
- e. Cosmetics
- f. Packaging

Step 3: Design Challenge

After creating these categories, invite learners to further develop their ideas by completing a design challenge of making or remaking a consumer good out of discarded plastics using the resource below. Learners can create anything they can think of that can be used as a consumer good, it doesn't need to be limited to the categories identified! It can be anything!

- a. http://www.greenlearning.ca/circulareconomy/PDFS/CircularEconomy_MakeRemake.pdf
- b. You can share the following case studies with the learners before they dive in:
http://www.greenlearning.ca/circulareconomy/PDFS/CircularEconomy_WhatToDo.pdf



Step 4: Conclusion

Complete the design in Tinkercad. Be creative and show us what you designed by sharing photos of the end product by emailing to programs@greenlearning.ca

This activity can also be conducted on [Tinkercad](https://www.tinkercad.com) - by selecting the "Making at Home" option in the Tinkercad dropdown, learners can choose plastic items they can usually find at home when creating a 3D design of a new product!

