

Eco 360 Program Objectives

Activity 1: What is a Circular Economy?

- ❖ Learn the concept of a circular economy, its inception, application, and future. Reflect on the need for a circular economy, the problem of waste in the world and the flaws of the current linear economic model.

Activity 2: What are Plastics?

- ❖ Learn about plastics, their history and application in our daily life. Learners will conduct research to understand the life cycle of plastics and share their findings with the class.

Activity 3: Different Types of Plastics

- ❖ Learn about the different kinds of plastics found in our economy. Learners will learn how to distinguish what kind of plastic they are dealing with by looking at the labels on plastic products.

Activity 4: Properties of Plastics

- ❖ Discover various physical and chemical properties of common household plastics through an at-home or in-class experiment.

Activity 5: Sources of Plastic Waste in the Environment

- ❖ Explore the sources of plastic waste in the environment. Learners will learn about the countries and industries that produce the highest amount of mismanaged plastic waste ending in the environment.

Activity 6: Plastics in the Environment

- ❖ Learn about the negative effects of plastic waste on our environment - focusing on how plastic waste impacts our land and water bodies and air.

Activity 7: Plastics in Our Oceans

- ❖ Learn about the production of macro and microplastic, and how it ends up in our environments. Explore the negative impacts of plastic in our water bodies, in particular our oceans.

Activity 8: What Is Your Plastic Consumption Footprint?

- ❖ Learners will monitor their plastic waste on a weekly basis for a semester and take actions to reduce their plastic footprint.

Activity 9: Policy Action: Circular Economy for Plastics

- ❖ Learn how policy can help transition to a circular economy by looking at various circular economy policies around the world.

Activity 10: Plastic Waste to Energy

- ❖ Learn about the chemical conversion of plastic waste into energy. Explore Edmonton's Waste Management Centre and learn how the facility manages its waste.

Activity 11: Plastic Waste to Consumer Goods

- ❖ Explore ways in which plastic waste can be repurposed to create consumer goods by completing a make-remake activity - i.e., a design challenge to make something new out of recycled plastic.

Activity 12: Plastic Waste Management in Canada

- ❖ Learn about plastic management and diversion in Canada and explore what our local municipalities are doing to address plastic pollution.

Activity 13: Circular Economy, Sustainability and Climate Action

- ❖ Learn about the United Nations' Sustainable Development Goals and explore how a circular economy for plastics fits within the climate action goals of a country.

Activity 14: Reimagining Economy Using Biomimicry

- ❖ Learn about biomimicry and how it can be used to design better products and systems to eliminate plastic waste.