EVERFI

Curriculum Guide

Sustainability Foundations

Ready to Recycle

Recommended Grade Level: 5–8

Total Time: 3 modules, 15 minutes per module

Subject Fit: Science, Social Studies, etc

Standards Alignment: North American Association for Environmental Education; Next Generation Science Standards

COURSE OVERVIEW

The Recycling course is designed to give fifth through eighth grade students knowledge of ways to reduce the amount of garbage put into landfills or incinerators. Students will explore how to properly separate and dispose of various kinds of household waste. While most students have learned the importance of recycling by this point, there are many misconceptions about what items can be recycled, leading to a phenomenon called "wishcycling." Wishcycling not only adds a lot of time and cost to recycling, but it also causes loads of recyclable materials to be diverted to landfills and out of the recyclable materials pipeline. This course will help students understand how recycling helps reduce pollution by reducing our use of raw materials and how planning a sustainable lifestyle begins with the choices we make and the goods we buy each day.

TOPIC AREAS

Recycling

- Students will learn what can be recycled, composted, or thrown in the trash.

Single-stream recycling

- Students will understand how loads of recyclable materials are sorted and processed.

Raw materials

- Students will learn how raw materials such as lumber, sand, oil, and ores are processed into products such as paper, glass, plastic, and aluminum.

Environmental impact

- Students will compare the environmental impacts of sourcing raw materials versus using recycled materials.

Sustainability

- Students will learn about the ways their choices impact the environment and communities that produce goods. They will understand what it means to have a sustainable lifestyle.

COURSE STRUCTURE

Pre-Survey	The Single Stream Journey	Mining and Refining vs. Recycling	Recycling and Sustainability Simulation	Post-Survey

Each module is accompanied by an offline lesson plan to use in the classroom

DETAILED COURSE OUTLINE

The Single Stream Journey

Students will learn how to appropriately separate household waste into recycling, compost, and trash, from four characters (Elias, Lei, Josefina, and Antonio) then learn what happens to collected materials at the recycling facility.

Learning Objective:

- Learners will be able to categorize items as trash, compostable, or recyclable.
- Learners will be able to describe the impacts of poor waste management on the environment.

Activity Topic	Activity Description
Sorting Waste	Students learn how to sort waste into recycling, compost, and trash.
Wishcycling	Students will understand the impact of wishcycling and learn to differentiate between recycling and wishcycling.
The Single Stream Journey	Students learn what happens to recyclable items once they are collected and taken to the local recycling facility.

Offline Materials:

- A discussion guide prompts students to discuss what they were surprised to learn can and cannot be recycled.
- An activity tasks students with surveying community members about what items they think can and cannot be recycled.

Mining and Refining vs. Recycling

Students interact with five characters (Mrs. Albritton, Elias, Oni, Krish, and Adriana) from different parts of the world. Each of the student characters will explain how a natural resource is mined or harvested and what impact the sourcing of raw materials has on the environment.

Learning Objective:

- Learners will be able to describe the environmental impacts of mining and refining new resources.
- Learners will be able to differentiate between energy used for mining and refining new resources with the use of recycled materials.

Activity Topic	Activity Description
Trees	Adriana explains how in places like Brazil, trees are harvested either through selective cutting or clearcutting to make products such as lumber and paper. She explains the effects this has on the local environment.
Sand	Oni explains how, in places like China, sand is mined from beaches and riverbeds to be used to produce glass. She also explains the effects this has on aquatic ecosystems and the larger environment.
Oil	Elias explains how oil is drilled and pumped up from the land and the ocean floor. He also describes the effect this has on the air, land, and water.
Bauxite	Krish explains how bauxite is mined and refined first into alumina, then further into aluminum, which can be used to produce industrial mechanical parts, sports equipment, and food containers such as cans and foil.

Offline Materials

- A discussion guide encourages students to discuss the comparative effects on the environment between new, raw materials and recycled materials.
- An activity asks students to research what items can and cannot be recycled in their local facility. They will also investigate the impact wishcycling and recycling have on the world around them.

Recycling and Sustainability Simulation

Students will understand what it means to have a sustainable lifestyle and how their everyday decisions can impact the environment.

Learning Objectives:

- Learners will be able to explain how recycling ties into sustainability.
- Learners will be able to describe how items do or do not fit into a sustainable lifestyle.

Activity Topic	Activity Description
Sustainability	Students learn what sustainability means and how it includes the environment, economics, and social equity.
Simulation	Students will role-play as a volunteer for a community group putting together back-to-school giveaways by analyzing items and selecting the best sustainable options.

Offline Materials

- A discussion guide leads students through comparing misconceptions about recycling with what can actually be recycled in the local facility.
- An activity asks students to create a public service announcement (PSA) to reduce the rate of wishcycling at the local facility.