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2nd - 5th grade

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Teacher Lesson Plan

Grades 2 - 5 Time: 1 - 1.5 hours



Overview

Did you know that 39,485,479.05 tons of waste were sent to California landfills in 2018 alone (Cal Recycle, 2018)? Of this, 181,189 tons were from the RethinkWaste service area (RethinkWaste, 2019). While this comprises less than 1% of our state's total landfilled waste, we can still work to reduce it.

When material is sent to the landfill, it is compacted and becomes a source of methane, which is a greenhouse gas that contributes to climate change. By reducing the amount of waste we are sending to landfill, we are reducing the amount of methane sent into our atmosphere.



Purpose & Learning Objectives

This activity allows students to reflect on their own behaviors and think about how they affect the environment. Students are encouraged to share what they have learned with their caretakers or other decision-makers in their community.

Materials

Students will need internet access for this activity. They will also need a pencil and paper. Adult facilitation is strongly recommended but not required.

Driving Question

How does sorting our waste into the compost, recycling, and garbage bins help the environment?

Teacher Lesson Plan





Key Terms

ORGANIC MATTER: Matter that has come from a recently living organism. Organic matter can decay, or break down

FOOD SOILED PAPER & Paper products that have come in contact with food. Ex. A used napkin

CONTAMINATION & To make something unusable by adding things that don't belong

Standards & Topics Connections

One Planet Living Topic

Zero Waste, Products & Materials (Consumption) Standards: NGSS, HSS, Common Core Crosswalk of Standards

Problem Exploration NGSS: 3-5-ETS1-1, 3-5-ETS1-2, 5-PS1-3, 5-ESS3-1

HSS: Geography of the Local Region,
Development of the Local Community: Change Over
Time

Common Core: 3-5.VV.1, 3-5.VV.8, 3-5.SL.6, 3-5.L.1, 3-5.L.2 3-5.L.3, 3-5.L.6 Environmental
Principles and
Concepts
(EP&Cs)

Principals 1, 2, 3, 4, and 5

Adaptations & Extensions

This lesson can be extended to learn about sorting at the Material Recovery Facility (MRF). Follow <u>this lesson plan</u>, where students use critical thinking and engineering skills to build their own MRF!

Student Worksheet



1 - 1.5 hours



Introduction

If you live in the Rethink/Vaste service area, which includes cities from Burlingame to East Palo Alto, the garbage we make at school, home, and businesses is sent to the Ox Mountain Landfill in Half Moon Bay - right next to Lemos Farms!

Ox Mountain is expected to fill up around 2039; when this happens, we need to start a new landfill. However, if we reduce the amount of waste that we send there every day, we can make sure that the existing landfill is open longer.

One way we can help is by sorting our waste into the recycling and compost bins instead of putting everything into the garbage.

For today's activity, we are going to learn about how to sort our waste and how we can teach others to do the same!

Instructions

- 1. Start today's lesson by watching <u>Episode 2</u> of The Green Zone.
- 2. Next, try your hand at sorting with this game on the RethinkWaste website.
- 3. Finally, share what you've learned with everyone that you live with! If you have recycling, compost, and garbage options available to you at home, pick one of these options:
 - Post <u>these signs</u> wherever you see waste bins in your home
 - Create your own new signs and post them wherever you see waste bins in your home.
 Use words or phrases that will work best for you and your family!
- Teach the other people that you live with about how and why we sort our waste

- If you do not have sorting options available to you at home or at school, write a letter to whoever is in charge of arranging these services. For example, this could be your apartment complex's property manager, your principal, or your adult guardian.
- Explain why you are requesting compost or recycling services, and why it is important that we do our best to sort our waste!
- If you don't have a compost pail in your kitchen, ask your parent or an adult in your household to help request a free compost pail by contacting Recology <u>here</u>.





Student Worksheet





Reflection Questions

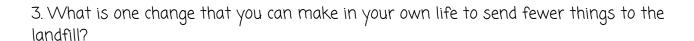
Note: To access the reflection questions online, click here.

Below are the printable version of the reflection questions:

1. Who or what do you think is affected by landfills being in or near their homes? Do you think they like the landfill? Hint: Think about smells, litter, and natural habitats!



2. What is the benefit of putting food in the compost bin instead of the garbage bin? What about putting recyclable items in the recycling bin instead of the garbage bin?



4. What is one thing that you've learned during this lesson that you wish everyone knew?

