

**Using Distance Learning as an Asset: Waste
Reduction in the Home**

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Table of Contents

**Distance Learning as an Asset
How to frame Waste Reduction
Activity Guides
Peer Expertise**

Using Distance Learning as an Asset

There are real challenges to distance learning, and any ways we use distance learning as an asset do not discount the struggles and the hard work that you as educators do to work through and around them.

What can students do during distance learning that they can't do in a school setting?

- Access home data
- Increased relevance of realia/topics
- Immediacy of lived experience
- Quarantine behaviors as a potential positive from an EE perspective

Accessing those Assets: Work with students to...

- Build space for them to share their situation and their feelings with you
- Allow them autonomy to direct their investigations/learning
- Provide them with options/modifications for projects

The Challenge Donut Analogy (see diagram in slides)

- The middle/hole of the donut is the **comfort zone**. Safe, protected, not very fulfilling, contained.
- The donut itself with the dough and sprinkles is the **challenge or learning zone**. Students have to expand their knowledge and are challenged to risk and learn something new.
- The space where there is no donut is the **panic zone**. This is a space where students are so afraid or uncomfortable that they aren't able to do anything other than seek a safer space.

We want students to be in the challenge zone when we ask them to examine their own behaviors and consider making behavior changes.

In the midst of this pandemic context, some students will be living constantly in their challenge zone before learning even begins. There is an ambient level of discomfort for many, while others might be living in their comfort zone. Not all students are in an emotional or environmental space where they can make changes to their behavior right now.

Framing the topic of Waste Reduction

Eco-friendly behavior is difficult to encourage because...

- Issues of access
- Different backgrounds and cultural values
- It is hard to change, easier to go along with what you know already works

Frame Change Positively

This pandemic has forced drastic change on us. It has been said, “Shame is the only useless emotion”. As educators, we want to be focused on framing the active changes we’ve had to make, or can make, as positive. We want to focus on things like:

- Incremental change
- Do > Don’t
- Creative solutions
- Talk about systems
- Acknowledge inequity

Students are not always well positioned to change their own behavior.

- Students in their comfort zone are much better able to do big-picture thinking.
- Students who are in the challenge zone will be thinking more about individual growth and their own lifestyle habits and impacts.
- Students in the panic zone will be focused on safety and retention of habits.

How can you use students who are different stages of this process in different ways in project based learning?

How do we engage with students in different zones and different stages of their journey?

The Journey to Action

1. Awareness:

Develop an understanding of the problem and the role of individuals and systems in solutions.

→ Low Affect, all zones

2. Individual Growth:

Make incremental changes in lifestyle in order to enact change. May include immediate family/social circles.

→ High affect, challenge zone

3. **Community Action:**

Organized action designed to change systems such as government, commerce etc.
→ Medium/high affect, challenge or comfort zone

Activities for building Awareness

Garbology

Awareness

Access: ALL

SEL: Low-Medium Affect

1. Record contents of home garbage
2. Make a list (or image) and submit to class anonymously
3. Classmates examine trash as ‘archaeologists’ to draw conclusions about ‘inhabitants’
 - a. What’s there?
 - b. What’s missing?

Virtual Tours

Awareness

Access: ALL

SEL: Low affect

1. Have students attend a virtual tour of:
 - a. Wastewater Treatment
 - b. Landfill
 - c. Recycling Plant
 - d. Energy Recovery Center
2. Share learnings about different methods of waste management

Object-Specific Study

Awareness

Access: ALL

SEL: Low Affect

1. Students research a “high-impact” waste object
 - a. Plastic bottles
 - b. Cell phones
 - c. Food

- d. Etc. etc. etc.
2. Consider using Emily's keynote/plenary presentation as a launching point for this project

Class Data Collection

Awareness

Access: Low Challenge

SEL: Low Affect

1. Students measure daily waste
 - a. Class-specific measure
2. Daily google form/survey collects data
3. Students analyze data
4. Develop class and individual goals for reduction

Home Audit

Awareness

Access: Low Challenge

SEL: Medium-Low Affect

1. Student Document:
 - a. Garbage/waste amounts
 - b. Appliances + energy output
2. Interview Family
 - a. What do parents do to reduce waste/save on costs? (What do the things cost?)
 - b. What did parents grow up seeing/learning about waste reduction at home?

Activities for building Individual Growth

Daily Habit Journal

Individual Growth

Access: ALL

SEL: Medium-High Affect

1. Daily record of waste produced and things done to reduce waste
2. Regular goal setting w/teachers
3. Student "support group"

Modification: post a picture of one thing you did to reduce waste

My Day in Quarantine

Individual Growth

Access: ALL

SEL: High Affect

1. Compare/Contrast
 - a. A regular school day
 - b. A day in quarantine
 - c. Difference in waste reduction
2. Current events: ecological changes since quarantine procedures

UpCycle Challenge!

Individual Growth

Access: High Challenge

SEL: Medium-Low Affect

1. Students make a short video showing a craft that they did with reused objects.
2. Other students challenge themselves to make it, post pictures of results.

Activities for building Community Action

Reduction Challenge!

Community Action

Access: Low Challenge

SEL: High Affect

1. Use class data to stage a friendly competition
 - a. With class (lower to a certain goal amount)
 - b. With another class
2. Challenge debrief:
 - a. What gets in the way of your goals?

Modification: Class “boycott” of a particular type of product

Community Waste Management

Community Action

Access: Medium Challenge

SEL: High Affect

1. Research waste management in your city
2. Discuss pros/cons
3. What’s missing?
4. Contact government bodies with suggestions for changes

School Proposal

Community Action

Access: Medium Challenge

SEL: High Affect

1. What waste did you produce at school? How is this different now?
2. What changes can you keep?
What else could you change?
3. Write/present proposal to admin

Share your expertise: What other applications can you think of?

Webinar chat respondents shared these ideas:

- I made a lesson for some of our older scholars to ‘adopt a drain’ in the cities that they go out and check and clean monthly. Researching how this helps our community.
- Our 4th graders do water testing at a local river and report it as citizen science to an organization. Families can adopt a river or lake in the area too to test and report on. Kits are given out by the organization to do the testing.
- Students labeled drains that lead the rivers/lakes. There are maps from the DNR that show ditch flow in different areas of the state to rivers and lakes.
- Students can pick up trash in their area--some potential for data tracking.
- I have been doing a lot of things. Since I am also the gardener for the school, I have sent home compost buckets for students to collect their families’ food scraps to benefit our school garden. They go home on the bus, they come back to school, and I empty them into the composter, rinse it out and send it back to families. It is working great but we are a small school.
- Our school also did a project where we made sewless bags out of t-shirts.
- We are having Zoom meetings with our parents. This next week will be EE for parents.