



Educational Resources for Remote Recycling Learning: Middle School

This is a strange and unprecedented time, and we find ourselves in the position of needing remote education strategies for the time being. These resources have been compiled to help you teach about reducing, reusing, recycling, and composting in conjunction with a unit on natural resources, conservation, or environmental science. I hope that this resource helps you spark a discussion and keep students focused on how they can continue to recycle and compost even while they are out of school.

Please don't hesitate to contact me: Justin Wilcock justin@sonomacorr.com

Recommended Activity: Material Life Cycle Analysis

- Ask students to pick a material that they have been frequently encountering while they have been at home (cardboard delivery boxes, plastic drink bottles, aluminum soda cans, plastic bags, paperboard pasta boxes, etc.). Ask them to complete a Life Cycle Analysis on this material. What they should be trying to find out is some variation of the following:
 - What natural resource is this material sourced from? (E.g. oil, ore, trees, etc.)
 - What is the extraction and production process like? What effect do these processes have on the environment?
 - Can this product be recycled? You can refer students to our website www.sonomacorr.com or the Zero Waste Sonoma's online guide www.zerowastesonoma.gov .
 - What is the environmental impact of recycling or landfilling this item?
 - What is the environmental impact of this item being littered or escaping out into the natural environment?

Recommended Activity: Visual Waste Assessment

- Have students complete a "waste log" in which they keep track of:
 - What they are disposing of
 - How they are sorting each material
 - Connected to their life cycle analysis above: what happens once they put their items in the trash, recycling, or compost?
 - Ask them to make a visual estimation of what percent of their waste is trash, recycling, and compost
 - Ask them to reflect on the experience:
 - Were they surprised by the amount of things they threw away?
 - Were they surprised by the volume of recycling, trash, or compost they had?
 - Have their observations led them to think of any ideas to change their behavior?
 - Does this visual waste assessment have any applications to their regular daily life?

Games:

- "Recycle Round Up" from National Geographic
 - This game has students prevent waste from being littered at the park – they need to sort it into trash, recycling, or compost.
 - <https://kids.nationalgeographic.com/games/action-and-adventure/recycle-roundup-new/>
 - Recommended follow-up:
 - Do you ever notice litter at the park, or in other public places?



- Why is it important to prevent litter? What harm can it do?
- Why is correct sorting important?

Reading Resources:

- *The Guardian* has an entire series of articles called “The United States of Plastic” that explore the depth and breadth of our plastic problem
 - Link: <https://www.theguardian.com/us-news/series/united-states-of-plastic>
- *National Geographic* also ran an entire issue of their magazine called “Planet or Plastic?” and they keep a page on their website updated with recent articles, actions people have taken, and various pledges and ways to get involved.
 - Link: <https://www.nationalgeographic.com/environment/planetorplastic/>

Video Resources:

- “Takeout creates a lot of trash. It doesn’t have to.” From The University of California Climate Lab series of videos.
 - Description: This video dives into how pervasive single-use plastic items are, especially in takeout, and how we can be more mindful about this problem.
 - Link: https://www.universityofcalifornia.edu/climate-lab?utm_source=August+2019+Newsletter&utm_campaign=August+2019+newsletter&utm_medium=email
- “California faces recycling crisis” from ABC7News
 - Description: Local news outlet covers problems in the recycling industry, and visits MSS.
 - Link: <https://www.youtube.com/watch?v=Z4v7jG1MvmM>
- “The Story of Plastic” from The Story of Stuff Project (~4:00 minutes long)
 - Description: Details what is going on behind the scenes with our plastics, and what happens to them after we put them in the recycling bin.
 - Link: https://youtu.be/urFZ5o0az_4
- “The Story of Stuff” from The Story of Stuff Project (~20:00 minutes)
 - Description: Focuses on how our linear “stuff” economy can’t work on our finite planet with finite resources.
 - Link: <https://youtu.be/9GorqroigqM>
- “The Story of Bottled Water” from the Story of Stuff Project (~8:00 minutes)
 - Description: Explores how the water bottle industry created demand for a product we do not need, and why we should opt for refillable water bottles.
 - Link: <https://youtu.be/Se12y9hSOM0>

Documentaries and Related Activities

- “Garbage Dreams” from PBS - <https://www.pbs.org/independentlens/garbage-dreams/film.html>
 - This film follows residents of a community outside of Cairo that survives by handling trash, and recycling 80% of the material they handle.
 - Your class can watch the 6-minute preview, or get access to the full-length documentary
 - Lesson plan and resources here: https://www-tc.pbs.org/independentlens/garbage-dreams/classroom/04_garbage dreams_lesson.pdf