

Upper Valley Linkages for Environmental Literacy (UVLEL)

Unit Summary

WASTE MANAGEMENT

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6/5/2011

Grade level: 6

Essential Question: Students will understand that this is their planet and they have a limited, finite set of resources. How do they want to use these resources? (Energy, land, water, food, consumables, etc)

New Hampshire GEs/GSEs addressed:

S:SPS1:6:3.2 Use appropriate tools to collect and record data.

S:SPS1:6:4.5 Draw appropriate conclusions based on data collected.

S:SPS2:6:2.3 Estimate or predict the effect that making a change in one part of the system will have on other parts, and on the system as a whole.

S:SPS3:6:2.3 Explore evidence that human-caused changes have consequences for the immediate environment as well as for other places and future times.

S:SPS3:6:2.4 Explore how humans shape and control the environment while creating knowledge and developing new technologies.

S:SPS3:6:2.5 Investigate environmental and resource management issues at scales that range from local to national to global.

S:PS4:6:3.3 Provide an example to show that manufacturing processes involve changing natural materials into finished products through a series of processes that involve physical and/or chemical changes.

S:LS2:6:3.1 Define a population as all individuals of a species that exist together at a given place and time; and explain that all populations living together in a community, along with the physical factors with which they interact, compose an ecosystem.

Content: Understanding where our trash comes from (including the effect on the environment) to where our trash goes, again how it affects our environment

Process Activities:

- September, 2010: Students do a snack trash audit of what they would be throwing away and where it would end up.
- October, 2010: Marc Morgan from the Lebanon Solid Waste Facility visits my students
- October, 2010: Students do a persuasive writing piece on why we should recycle.
- November, 2010: Students visit the Lebanon Solid Waste Facility where Marc Morgan shows them the Landfill, compacting machines, weigh station, etc.
- December, 2010: Students created "Wanted Posters" of themselves telling what they could do better to lower the amount of trash they create.
- January, 2011: Students create Pie Graphs showing what is in our trash by %
- February, 2011: Students use Recycling, Reusing and Reducing as the topic for their monthly poem.
- March-May, 2011: Students begin researching facts about trash and start creating the storyboards for their brochures. After working on the layout and verifying their information, they began typing the information and finally adding graphics and color.

Assessments of learning: Along with teacher-generated assessments, I find general observation a wonderful source of assessment. Hearing students comment on the amount of materials in our recycling containers at the end of the week (more or less) is powerful. They remind others to rinse out their containers. They show me changes in how they bring their snacks, etc.

When we went to the Tsongas Industrial History Center in Lowell Mills, in conjunction with their unit on the Industrial Revolution, they were told they had to bring their lunch in disposable containers, as they couldn't carry anything in the museum. This really bothered them, and they were strongly questioning and debating the amount of trash that this would create.

Websites:

<http://idahoptv.org/dialogue4kids/season6/garbage/facts.cfm>

<http://www.opp.psu.edu/about-opp/recycling/recycling-facts-1/recycling-facts-by-material>

<http://r4.ucdavis.edu/publications/recyclingFunFacts.php>

<http://www.epa.gov/recyclecity/mainmap.htm>

<http://www.headwatersrecycle.com/why.html>

<http://www.ecy.wa.gov/programs/swfa/kidspage/trivia.html>

<http://www.astc.org/exhibitions/rotten/rtintro.htm>

<http://www.ecy.wa.gov/programs/swfa/kidspage/trivia.html>

<http://www.environmentalistseveryday.org/solid-waste-management/garbage-trash-waste-facts.php>

<http://www.green-networld.com/facts/waste.htm>

<http://www.northvalley.wm.com/recyclingfacts.asp>

<http://recycling.facilities.txstate.edu/info/funfacts.html>

<http://www.recycling-revolution.com/recycling-facts.html>

<http://www.keepodessabeautiful.com/trash.html>

<http://www.ejnet.org/landfills/>

<http://www.epa.gov/osw/nonhaz/municipal/landfill.htm>

<http://livinggreen.ifas.ufl.edu/waste/composting.html>

<http://library.thinkquest.org/06aug/00442/wu3rs.htm>

Books:

Waste Away; Vermont Institute of Natural Science
Kid's Human Footprint, Nat'l Geographic

Resources:

PETE's Pack: The National Association for PET Container Resources (NAPCOR)

GARBAGE: DVD, Canada

Length of Unit: Throughout the school year.