

TRACK IT!

GRADES 9-12

This activity was designed as a companion for the music video “Human Landfills.”

BACKGROUND

Humans are the only creatures that deliberately pollute, and many times we start to view garbage as something that just disappears after it is picked up by garbage trucks. We forget that hazardous materials and other waste don't just go away when we pay someone else to take care of it.

The average American generates 4.3 pounds of trash every day, which adds up to 1570 pounds each year. While some of this trash is recycled or burned, most of it finds a permanent home buried underground in landfills. As trash decomposes in a landfill it can release harmful chemicals that may affect the soil it's buried in, or the chemicals can move with the groundwater and spread to water sources that humans use. Engineers and scientists seal the trash with manmade structures as well as with the soil, so it won't be able to leak and harm wildlife or humans.

Overconsumption often leads to excessive and thoughtless disposal of items into places like landfills. Learning about the amounts of objects we use and the life cycle of each object will start us thinking in terms of conservation techniques like recycling, reusing, and – most importantly – using less. We need to respect the earth, the animals, the air we breathe, and our own bodies as we think about what happens to waste.

OBJECTIVE

This activity gets students on their feet and out into the community to learn more about the life cycle of common objects that many of us do not think about in terms of how much we consume and what we might do to conserve the resources needed for these objects. Students work as a team to track these objects, take initiative to cover each of the issues that need to be addressed in each project, and demonstrate leadership and creativity in how they present their results. This activity will take several days to complete.

OPTIONAL EXPANSION ACTIVITY

To help the students get a better feel for their local waste sites, schedule a tour at your nearest landfill/recycling center.

INSTRUCTIONS

1. Divide class into five groups (can use less groups if class is smaller)
2. Assign each group to one of the following:

Cell phone	Empty glass pickle jar
Plastic grocery bag	Spiral notebook
Blue jeans	

3. Have each group research the life cycle of their assigned object. Have them put together their choice of a poster presentation, radio podcast, or video to present to the class, which includes:
- How many are used/owned by just your group alone?
 - How many are consumed/used by your town/city?
 - What raw materials go into making this object?
 - Where specifically do those raw materials come from?
 - How has the quantity produced and consumed of this object changed through time?
 - Does the US use more/less/similar quantities of this object than other parts of the world?
 - Where does this product end up at the end of its life cycle?
 - How many of this object end up in a landfill each year? How many are recycled?
 - Why is conservation of this object important?
 - Brainstorm and market a creative way to conserve this object. Is your town doing a good job of recycling this object or could it do more? Do your friends and family have any idea about the life cycle of this object or the different ways to dispose of it? How long do you use the object before you throw it out?
 - The final product of each team should include information from EACH of the following:
 - Local store where this object is sold
 - Nearest landfill/recycling center
 - Online (be sure to properly cite sources)

RESOURCES

List of landfills in Iowa: http://iowa.localguides.com/ypcyellow/landfills.html?utm_source=google_state&utm_medium=cpc&utm_campaign=ypc&gclid=COHTiYmakLICFSdgMgodURkAgQ

For many ideas about how everyone can try to reduce consumption, visit:
<http://www.astc.org/exhibitions/rotten/action.htm>

To learn more about the life cycle of trash, see:
<http://www.advanceddisposal.com/garbage-101/education-zone/life-cycle-of-trash>

What goes into a landfill: <http://thepaperlifecycle.org/end-of-life/in-depth/what-goes-into-the-landfill/>

To learn more about what happens after an object is thrown into a recycling pile, see:
<http://www.deq.state.or.us/lq/pubs/docs/sw/curriculum/RRPart0406.pdf>

For more life cycle websites, go to: <http://www.epa.gov/osw/education/pdfs/life-cell.pdf>