



Lesson Plan - Landfill

Upper Elem/Middle/High School

- Students will explore the history of garbage disposal, from open dump sites to the state and federally regulated landfills of today.
- Students will gain knowledge of the engineering standards required to build a state of the art landfill.
- Students will understand daily management of the landfill facility and the importance of preserving the earth as well as landfill space.

Vocabulary Words:

Solid Waste: All garbage or waste. It can be a solid, semi-solid, liquid or a gas. It can be reusable, recyclable, hazardous or organic.

Solid Waste Management: Recycling applicable materials, reducing volume in the landfill, safely burying and containing all solid, semi-solid and liquid waste.

Working Face: Area of a landfill cell where vehicles unload and Operators manage incoming loads of waste.

Landfill Cell: A landfill cell is a single, waste-holding unit within the larger landfill property.

Geomembrane: a continuous polymer sheet of high-density polyethylene. (HDPE plastic). Geomembranes are used to restrict the escape of waste material, fluids, or gases from a landfill.

Leachate: a highly toxic wastewater formed as a result of rain-water and snow moisture dripping through waste in landfills.

Waste Water Treatment: a process used to remove contaminants from wastewater and convert it into a liquid that can be returned to the water cycle.

EPA: United States Environmental Protection Agency.

DNR: Department of Natural Resources.



Double Click to Watch Video

Watch the Video

Carroll County Solid Waste - You Tube Experience:

- history of waste disposal
- events leading to the construction of modern day landfills
- development of state and federal laws
- construction
- daily management of landfill facility
- how we protect the earth

Fill in the worksheet

- Students fill in the worksheet while watching video to increase understanding of landfill operations.
- Stop video at intervals, discuss questions.

email kmonical@carrollcountysolidwaste.com for worksheet and answer key.

Schedule a Tour!

Landfill tours are an impactful way to conclude the lesson. Students will see up close the working face of the landfill, the surrounding monitoring wells and our closed landfill areas.

email mwittry@carrollcountylandfill.com or call 712-792-5001 to schedule

We are located at 19111 Kittyhawk Ave. Carroll, Iowa.