

Chapter 19 Section 1 Notes

Solid waste – any discarded solid material (agricultural waste, plastics, food waste)

- The total amount of solid waste generated in the U.S. in the last 40 years has doubled
- The average person living in the U.S. produces about 4 lbs of solid waste per day
- examples of solid waste: coffee grounds, computers, cars, scrap metal, sludge, ash, packaging materials, batteries, and grocery bags

Not all Wastes are Equal

- organic material is biodegradable (can be broken down by biological processes)
 - ex) leaves in compost piles, paper, wood, fibers
- Plastic Problems – can't be broken down by biological processes
 - nonbiodegradable – plastic milk jug, polystyrene burger container
 - even biodegradable plastics have disadvantages – the plastic parts are reduced to smaller pieces but are not completely degraded.

Types of Solid Waste

- Municipal Solid Waste – garbage produced by households and businesses
 - most is paper
- Manufacturing, Mining, and Agriculture
 - manufacturing waste makes up more than half of the total waste produced
 - includes scrap metal, plastics, paper, sludge, and ash
 - mining waste - rocks and minerals left over from excavation and processing
 - agricultural waste - may be harmful even though it is biodegradable

Solid Waste Management

- Landfills – place to dispose of waste by burying it
 - most important function of a landfill is to contain buried waste and prevent it from contaminating the environment
- Problems with Landfills
 - leachate – a liquid that has passed through compacted solid waste; water that contains dissolved chemicals from wastes that have been buried
 - methane production
- Landfills built today must:
 - be lined with clay and plastic
 - have systems for collecting and treating leachate
 - have vent pipes installed for removing methane
- Incinerators – facility for burning trash
 - the ash produced when solid waste is incinerated is more toxic than the original solid waste
- From 1970 to present, the percentage of waste that is recycled has increased from 6.6% to 28%