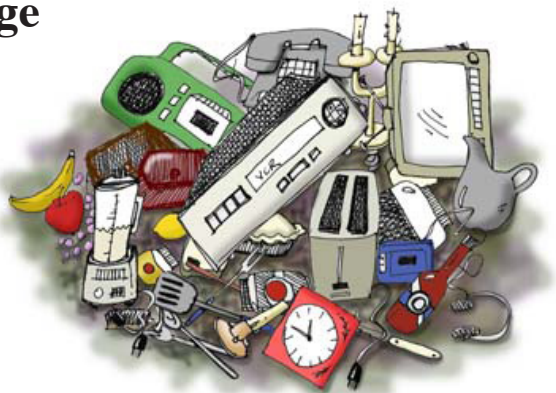


# Too Much Garbage

Researchers have found that Americans each make about 4.5 pounds of garbage every day. The U.S. makes more garbage than any other country on Earth. We have 5% of the people on Earth, but make almost 1/3 of all the world's garbage!



Too much trash has always been a problem for communities of people. Early American settlers dealt with their garbage by dumping it over their back fence, in the river or burying it in their yard. They often burned garbage too. As communities grew into towns, they made town dumps. Now we call garbage dumps – **landfills**.

Even earlier in history -- in the years 1347-1351 the bubonic plague, also called the “black death,” spread through Europe, Asia and Africa killing 75 million people. What they didn't know at the time was that it was all caused by too much garbage in the streets. Piles of garbage attracted rats, which had fleas, which carried the disease. The rats carried it from place to place. The lack of sanitation made the spread of the epidemic the worst in human history. At the end, half the population in the places struck, were dead -- all because of too much trash!

Many early landfills were made in wetlands, which were thought to be wasteland. Early landfills leaked into rivers and lakes and built up gases, like methane. Garbage dumps used to catch fire and even explode, because as garbage rots, it gives off methane, a flammable gas. The first garbage burning plant, called an **incinerator**, in the U.S. was built on Governor's Island in NY in 1885. By 1914, there were 300 incinerators burning garbage in the U.S.

Landfills have changed over time. As of 1995, there were more than 2,500 landfills in the U.S. In 1993, a law was passed that all landfills must be lined with a big plastic liner to keep them from leaking into the environment. They also have to have “gas monitors” to keep track of the dangerous gases that build up. Landfills have been buried, landscaped and reclaimed into golf courses or city parks all over America.

Methane gas adds to the greenhouse effect in the atmosphere, but can also be collected and burned for energy. It is now fueling some passenger trains and buses in Sweden. Called “*biogas*” this new form of energy uses waste, like animal parts left over at the butcher, to make the methane. It is considered a green energy source. Methane is made by mixing a big organic soup, with all the old cow parts and manure, and then adding bacteria that will digest the mixture. The bacteria, as it digests, gives off the gas. The energy company collects the methane and sells it as fuel. Each cow provides 2.5 miles of train travel.

# Too Much Garbage - Read and React

1. Name who ways that Early Americans used to get rid of their trash:

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2. How was bubonic plague, caused by too much trash?

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3. Name three reasons why dumping trash into wetlands was so bad?

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4. What did we do to stop landfills from leaking into our waterways?

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5. How have some countries made good use of the methane gas that builds up in landfills?

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