## Some interesting and insightful facts you may not know about the secret world of trash.

Did you know that the amount of trash buried in landfills has doubled since 1960? The United States ranks about in the middle of the major countries (United Kingdom, Canada, Germany, France and Japan) in landfill disposal. The United Kingdom ranks highest, burying about $90 \%$ of its solid waste in landfills. (http://science.howstuffworks.com/enlarge-image.htm?terms=recycling+-tower+-security+-carbon+-garage+-kids\&page=7)

According to the Keep America Beautiful website, Americans generate 251.3 million tons of garbage per year. Since 1960, the amount of waste generated in America has nearly tripled. That means that we Americans discard four-fifths of a ton of trash per person, per year (National Geographic Channel). Sixtyfive percent of this trash comes from residences, while $35 \%$ comes from schools and commercial locations such as hospitals and businesses. Additionally, for every pound of garbage people generate, about seven pounds of waste are produced "upstream" (in the manufacturing process, before the product gets to the consumer).

Where does all of this trash end up? Fifty-five percent gets buried in landfills, $33 \%$ gets recycled, and $12.5 \%$ goes to incinerators. With a little forethought, we could reuse or recycle more than $70 \%$ of the waste that goes to landfills, which includes valuable materials such as glass, metal, and paper.

## http://www.learner.org/interactives/garbage/intro.html

http://channel.nationalgeographic.com/channel/human-footprint/trash-talk.html

## So what can we do?

There are many different things that can be done to try to reduce the amount of trash produced each year. The first step is awareness, simply helping people to be aware of the issue at hand. The next step is to fully embrace the four most common tactics for reducing waste: Reduce, Re-use, Recycle, and Compost. This document gives a little background information on commonly recycled goods, and why they are considered to be an issue to our environment.

## Paper:

Paper recovered for recycling has increased almost $100 \%$ since 1987. In 2003, Americans recycled more than 49 million tons, a little over $50 \%$ of all paper consumed in the U.S.

- Newspapers - Over 73\% of all newspapers are recovered for recycling. Almost a third goes back into making more newsprint. The remainder is used to make paperboard, tissue, and insulation, or exported.
- Boxes - Nearly 76\% of boxes, or corrugated containers, are recycled. A little more than 61\% are recycled into new boxes. Another $16.3 \%$ are used for paperboard packaging, like cookie and cracker boxes.
- Office Paper - Just over 48\% of office paper is recovered for recycling. These become raw material for paperboard, tissue, and printing and writing papers.

Recovered paper accounts for $37 \%$ of fiber used to make new paper products in the U.S.

## Fun Paper Facts according to the Paper Industry Association Council:

- $87 \%$ ( 268 million) of Americans have access to curbside or drop-off paper recycling programs.
- By 2012, the paper industry hopes to recover 60\% of the paper Americans consume.
- In 2007, an all-time high $56 \%$ of the paper consumed in the U.S. was recovered for recycling. The 54.3 million tons of paper recovered equal approximately 360 pounds for every man woman and child in America.
- Every ton of paper recycled saves more than 3.3 cubic yards of landfill space.
- Nearly $60 \%$ of old corrugated containers (OCC) are used to make new containerboard. Recycled paperboard absorbs approximately $15 \%$ of the OCC, and exports account for an additional $21 \%$.
- Old newspapers (ONP) are used to produce a variety of new products, but approximately onethird goes directly back into newsprint. A significant amount, $32 \%$, is exported, while approximately $12 \%$ is made into recycled paperboard.


## http://www.paperrecycles.org

## And according to The Green Team:

- Americans use more than 67 million tons of paper per year, or 580 pounds per person.
- American's receive almost 4.5 million tons of junk mail per year.
- About $44 \%$ of junk mail is never opened.
- Every person in the US receives the equivalent of one and a half trees per year or approximately 560 pieces of junk mail per year.
- The average person gets 1.5 personal letters per week compared to 10.8 pieces of junk mail.
- Approximately $40 \%$ of the solid waste mass that makes up our landfills is paper and cardboard.
- 100 million trees are ground up each year to produce junk mail.
http://www.thegreenteam.org/facts-tips.html


## Aluminum:

Recovery of aluminum for recycling dropped from a high of $68 \%$ in 1992 to just over $50 \%$ in 2003. While aluminum recovery has fluctuated, it has a long history of being recycled primarily because recycled
aluminum provides significant energy savings compared to the use of virgin raw materials (mainly the ore bauxite). Recycling aluminum saves $95 \%$ of the energy needed to produce new aluminum from raw materials. Energy saved from recycling one ton of aluminum is equal to the amount of electricity the average home uses over a period of 10 years. The value of aluminum also typically covers the cost for its collection and reprocessing. Recyclers paid nearly $\$ 1$ billion for returned aluminum beverage cans in 2002.

Although aluminum is a nonrenewable resource, it can be recycled indefinitely. Recycled cans are melted into ingots weighing up to 60,000 pounds-enough aluminum to make 1.6 million new cans. It takes 60 days for a can to journey from the recycling bin through the recycling process and back on store shelves.

Besides cans, other aluminum products that can be recycled include foil wrap, food cans, pie plates, frozen food trays, lawn chair tubing, storm door and window frames, residential siding, and auto parts.

## Plastics:

Plastic products account for $11.3 \%$ of all municipal solid waste generated in the U.S. In 2003, 5.2\% of it was recovered. About $8.9 \%$ of plastic containers and packaging were recovered, mostly soft drink, milk, and water bottles. Americans throw away enough plastic bottles each year to circle the earth four times. Every hour, we throw away 2.5 million plastic bottles ( 22 billion plastic bottles per year).

Two of the most widely used forms of plastic, PET (Polyethylene termpephthalate) and HDPE (high density polyethylene), are also the most recycled. PET bottles (soda, water) and HDPE bottles (milk, laundry detergent) are commonly collected in community recycling programs. In 2003, 31.9\% of HDPE and $25.2 \%$ of PET bottles were recycled. Most of the PET bottles ( $56 \%$ ) are used in the manufacture of fiber for carpet and clothing. And, $29 \%$ of HDPE bottles go back into making new bottles.

In 2002, more than 51 million pounds of polystyrene (Styrofoam material) were recycled back into foam egg cartons, lunch trays, transport packaging, and audio and videocassette cases. Polystyrene foodservice packaging (like clamshells) is not generally recycled because it is not economically sustainable.

Polystyrene, HDPE, PET and other varieties of plastic all have different properties, so they must be separated to be used as a raw material for new products. The differences between varieties of plastic may not be readily apparent when comparing containers visually. To help consumers assess the type of plastic, the society of the Plastics Industry developed a uniform coding system which identifies the type of resin used in plastic packaging (like bottles, packages, etc.). These "plastic codes" now appear on most forms of plastic packaging.

## Wireless Phones:

Wireless phone use has jumped from 33.8 million subscribers in 1995 to more than 255 million in 2007, according to the CTIA - The Wireless Association. Most phones are used an average of 18 months before
being replaced. It is estimated that more than 150 million cell phones will be replaced per year, accounting for a staggering 65,000 tons of e-waste. Before being disposed of, many will be stashed in homes and offices, creating a stockpile of roughly 500 million wireless phones.

A typical wireless phone consists of $40 \%$ metals, $40 \%$ plastics, and $20 \%$ ceramics and other trace materials. Much of this is recoverable, including the batteries. Wireless phones also contain a number of toxic materials, such as lead and brominated flame retardants, which are released into the environment when they are disposed of in a landfill or incinerator. The U.S. EPA estimates that more than 3.2 million tons of electronics are landfilled each year. Computers are typically discarded about every 3 to 5 years. By 2005, nearly 250 million computers were expected to become obsolete. In 2001, 11\% of personal computers were recycled, including recovery of steel, glass, plastic, and precious metals.

## www.kab.org

## Cigarette Litter Prevention:

According to the Keep America Beautiful website, Americans smoked fewer cigarettes in 2005 than at any time since 1951, yet cigarette butts remain the most littered item in the U.S. and across the globe. Cigarette butts don't disappear. About 95\% of cigarette filters are composed of cellulose acetate, a form of plastic which does not quickly degrade and can persist in the environment. Filters are harmful to waterways and wildlife. About $18 \%$ of litter, traveling primarily through storm water systems, ends up in local streams, rivers, and waterways. Cigarette litter can also pose a hazard to animals and marine life when they mistake filters for food.

During the Ocean Conservancy's 2006 Annual International Coastal Cleanup, U.S. communities reported that cigarette butts were the most littered item on roadways, beaches, and sidewalks-representing $35 \%$ of items collected.

## http://preventcigarettelitter.org/why it matters/why it matters.html

Cigarette Butt Litter facts from the Educational projects of Clean Virginia Waterways Department of Natural Sciences
http://www.longwood.edu/cleanva/cigbuttimpacts.htm

