GREEKS GO GREEN

Hi! Welcome to Cornell's Greeks Go Green sustainability guide. It was written with Cornell's Greek houses in mind, large houses that 30-60 people living in them, but most of these tips can apply to any household). If you have any further questions on anything, or concerns, or want help, email greeksgogreen@gmail.com – don't be shy, we're here for you!

ABOUT

The leaders of Greeks Go Green are Kristen Vitro and Christina Copeland, both sophomores in the College of Agriculture and Life Sciences. We are both involved with Sustainability Hub on campus, a group that takes on projects that make Cornell's Campus more sustainable. The Greek system is a big part of Cornell, and we decided that an initiative to make Greek life more sustainable could have a big impact on our path towards climate neutrality, which President Skorton has made a major priority on campus with his Campus Climate Neutrality Plan and Cornell Climate Action Plan.

THE FIRST SEMESTER PLAN

The fraternities and sororities on Cornell's campus are being divided into three groups. Each group will work on one of the three projects below for approximately 3 weeks to a month, and then the groups will switch to another project (so group one will start working on the first goal, after a month will switch to working on the second goal, after another month will start working on the third goal).

1. 

Hillel's Compact Fluorescent Light bulb Program

Exchanging your incandescent light bulbs with Compact Fluorescent Light bulbs (CFL's) is a very simple and smart environmental move. CFLs last ten times longer than standard incandescent bulbs, and they use 70% less energy. Also, a CFL saves $30 over a bulb's lifetime, compared to standard incandescent bulbs. Greeks Go Green has partnered with Hillel, who has kindly donated around 500 CFL's to the program, and will come to your house to bring free CFL's and give a quick presentation about CFL's and sustainability.

There will be 2-4 available switches a week, and Orly (the Hillel program coordinator) will go onto the interactive Google calendar ( ) at the beginning of the week and put in the times she is available to do switches (they will mostly be after 4 pm, in hopes that there will be more people at your house). The sustainability chairs for your chapter can then go on to the calendar and sign up for one of the times.

2.  **Recycling**

Recycling is one of the easiest things you can do to help the environment. Many items that you use in your daily life can get recycled—paper, cardboard, plastics, metals.

Is recycling required?

Here in Tompkins County, we have mandatory recycling laws (http://recycletompkins.com/EditorsTree/view/155/275). This means you can actually get in trouble if you don't recycle certain materials. Although the first few documented offensives results in minor fines, repeat offenders can face criminal charges. According to local law, county residents are required to recycle the following items:

-newspaper
-corrugated cardboard
-glass bottles and jars
-metal food and beverage containers

Residents are also encouraged to recycle mixed paper, boxboard, and plastics #1 – 7. A full list of recyclables accepted by Tompkins County's Recycling and Solid Waste for curbside pickup can be found here (http://www.recycletompkins.org/EditorsTree/view/162/220). Additional items can be brought directly to the county's Recycling and Solid Waste Center (http://www.recycletompkins.org/EditorsTree/view/162/226), located at 160 Commercial Avenue in Ithaca.

My house is privately owned. How does our recycling pickup work?

If you (or the owners of your house) pay property taxes, your house is eligible for curbside recycling, free of charge. Tompkins County picks up recyclables every OTHER week. If you live in the City of Ithaca, this occurs on your normal trash pickup day. For other areas around the county, please click here (http://recycletompkins.com/EditorsTree/view/162/221) to find out what day your recycling pickup is. You can purchase recycling bins from the county, or simply designate any bin with an "R" for recycling. If you are unsure of when your recycling gets

picked up, you can type in your address and find out at Tompkins County's Recycling and Solid Waste's main website (http://recycletompkins.com/). Simply sort out your recyclables with paper products separate from glass, metal, and plastic, and put the bins out the night before your scheduled pickup. There is no limit on the number of bins you can put out, as long as they are clearly labeled as recycling bins.

My house is University owned. How does our recycling pickup work?

If you do not pay property taxes (i.e. your house is owned by Cornell), you are not eligible for free curbside recycling courtesy of Tompkins County. Instead, you will need to contract your recycling pickup with a hauler. Many garbage haulers also offer recycling services, so you may want to check that out. Contact information for haulers can be found here (http://recycletompkins.com/EditorsTree/view/155/278/). If you have any further questions, please contact Walt Smithers (recycle@cornell.edu).

What's with the whole $0.05 deposit on certain bottles and cans?

New York State uses a bottle deposit system. You pay an extra $0.05 every time you purchase designated beverage cans and bottles. Most sodas, beers, and energy drinks are covered under this system. Therefore, it is not only good for the environment to recycle them, but it's also good for you financially. These deposit cans and bottles are clearly marked as such on their labels, and can be refunded at the following places:

-grocery stores, like Wegman's, Tops, P&C, and GreenStar
-K&H Redemption Center (900W State Street, Ithaca)

Throwing out these cans and bottles is literally throwing your money away, so they should be recycled properly.

Recycling is something that is very easy to do. For more information, please see Tompkins County's Recycling and Solid Waste website (http://recycletompkins.com/).

If you are trying to set up a recycling system in your house, and need some help doing so, feel free to email us at GreeksGoGreek@gmail.com.

3. Pick a Project

We have given several suggestions for the third goal, and you can pick one of them (or feel free to do more than one!). Also, if you have ideas of other environmental projects that you'd prefer to initiate instead of these, send an email to greeksgogreen@gmail.com and we can work with you to make it happen!

a. 

Composting

So you're interested in composting, but you don't know too much about it. Don't panic—this guide will help you learn almost everything you could ever want to know about composting: what it is, how to do it, what are your composting options. It might seem overwhelming at first but just remember, composting can be adapted to almost any situation—there are no rules. So go ahead and embrace composting, because it's a fun group bonding experience, and it's good for the environment too.

What is compost?
Compost is a dark, organic soil-like compound that is great for use on lawns and in gardens – it's full of nutrients, like nitrogen and phosphorous, that all plants need to grow. It's like a free form of fertilizer that is super great for all of your plants. Almost anything that was once living (aka food, paper products) can be composted.

Why should I compost?
Composting is good for the environment. It reduces the amount of waste sent to landfills. When food and yard waste ends up in a landfill, it takes a very long time for it to break down. When this waste finally does break down, it produces methane, a potent greenhouse gas (which is much worse than carbon dioxide). Composting promotes a more localized form of waste management, resulting in less pollution and greenhouse gas emissions. All of these benefits make it a great thing, but there's still another wonderful benefit of compost: it makes a natural fertilizer that can dramatically improve the soil in your lawn or garden. More information on the benefits of

composting can be found here (http://counties.cce.cornell.edu/tompkins/compost/Basics%20&%20Bennefits%20of%20Composting.pdf)

What can I compost?
Just about anything that was once living. Food scraps are the most commonly composted waste in residential piles. This includes fruit peels and cores, vegetables scraps, grains (including bread), pasta, and egg shells, among other things. Soiled napkins and paper towels are also frequently composted. In fact, any type of soiled paper products, including printer/notebook paper and cardboard, can be composted. Aside from the aforementioned items, yard waste, including leaves, grass clippings, branches, and wood can also be composted. For more information about what you can compost, click here (http://cwmi.css.cornell.edu/compostbrochure.pdf)

How do I compost?
Well this is a very important question. Composting can be done in a variety of ways. One of the most commonly used methods is also the easiest and the cheapest: an open pile. An open compost pile can be made by simply designating an area in your yard for compost to be dumped. Once you pick the spot, you can begin putting your organic wastes there. Many people choose to fence in their compost piles with chicken wire (http://counties.cce.cornell.edu/tompkins/compost/Welded%20Wire%20Cylinder%20Bin.pdf) or wood to make the pile more aesthetically pleasing. Other composting options include specialized bins, like The Earth Machine or rotating bins, but these methods tend to involve more of a financial investment. When composting, you should try to layer your pile according to the Lasagna Method (http://counties.cce.cornell.edu/tompkins/compost/Lasagna%20Composting.pdf). This method uses an alternation of "green" and "brown" layers, where the "green" layers consist of moisture rich materials, such as grass clippings or food scraps, and the "brown" layers consist mainly of dry materials, like leaves and soiled paper products. Although not following this method of layering won't be the end of the world, it does help avoid some of the common problems (http://counties.cce.cornell.edu/tompkins/compost/Troubleshooting%20Compost%20Piles.pdf) associated with compost piles.

You have a lot of freedom when it comes to how involved you want to be with your pile. You can simply let it sit indefinitely without intervention, or you can aerate it with a shovel or aerating tool once a week. Composting should be worked around your schedule to make it convenient for you, otherwise it will become an unwanted hassle.

Compost pile examples

Are there other options if I don't want a compost pile on my property?

Yes. There are many other options if you do not want to maintain an outdoor pile on your property. Special equipment can be made or purchased to allow you to compost within your home, often with little or no odor. If this doesn't seem like an option you would want to pursue, you can also have your compost picked up for a small fee. Companies such as Cayuga Compost (Cayugacompost@zoom-dsl.com) offer this service to the community. Another option is to utilize a pile in your neighborhood. Your neighbors might be willing to allow you to dump your compost into their pile, but this is something you should come to an agreement on before you begin doing so. For tips on group composting efforts, click here (http://counties.cce.cornell.edu/tompkins/compost/Group%20Composting.pdf).

With all of the information above, you should be successful in beginning your journey into the wonderful world of composting. More information about composting can be found at Cornell Cooperative Extension of Tompkins County's composting webpage (http://counties.cce.cornell.edu/tompkins/compost/). Here you can find a variety of informational sheets, as well as a schedule of local composting classes and information about the Master Composter program if you decide to you would like to learn how to teach others about composting.

If you have any questions and would like to talk to someone, feel free to call the CCE of Tompkins County "Rotline" at (607) 272-2292.

You can also email us with questions at GreeksGoGreen@gmail.com.

b.  Food (local, organic, vegetarian) and Beverages

Producing enough food for everyone puts a big strain on our earth, especially with the intensive, large-scale agriculture that is currently status quo. There are several factors to consider when buying food, however, that can make a big environmental difference.

How far your food has traveled to get to you. While there are clearly some foods that will have to be shipped to us, such as coffee and bananas, food that could be grown locally or close by often comes from faraway places. **The average American meal travels 1500 miles from the farm to your plate**. Eating locally can make a big difference on what your "carbon footprint" is, or how much carbon you are directly and indirectly adding to the atmosphere. Next time you go grocery shopping, try to pay attention to where the food you are buying is coming from. If you don't do the grocery shopping, talk to your chef about it. Also, Ithaca has a great farmers market during the spring, summer, and fall, which is fun to go to even if you don't want food!

How much meat is in your diet. A 2006 United Nation Report stated that "**the livestock sector emerges as one of the top two or three most significant contributors to the most serious environmental problems, at every scale from local to global**." Remember that 10% rule, from Biology class, where only ten percent of the energy in one trophic level is passed onto the next level when it's eaten? The majority of crops grown in America are used to feed cattle, with the ultimate goal of killing them and feeding us. Looking at the ten percent rule, you can feed 10 people beef, or you could feed one hundred people products made from that same amount of wheat. Growing grain for cattle leaches huge amounts of pesticides and fertilizers into aquatic ecosystems – in fact, where the Mississippi River empties into the Gulf of Mexico, there is dead zone (a place where no life can survive) the size of Rhode Island because of all the chemicals and nutrients that are dumped there by the river.

It takes around 2400 gallons of water to produce one pound of beef (the water goes into growing food for the cow, as well as drinking water, water used in the slaughterhouse, etc). This is the same amount of water you would use if you took a seven minute shower every day for 6 months. Only 25 gallons of water are needed to produce one pound of wheat. It is also estimated that for each pound of beef, 100 square feet of rainforest has been destroyed (Converting the rainforest to be used for livestock farming is believed to account for 50% of rainforest destruction (rainforestconcern.org)). Because of the huge amount of resources that goes into producing one pound of beef, even modest reductions in meat consumption can make a big difference. What you can do is talk to your chef about making sure there are vegetarian options, or make a choice to have a day a week (or more) where you don't eat meat. · **^** New York Time's Article: Rethinking the Meat-Guzzler
www.vegetariantimes.com

If the food is organic or not. Organic means that the food was grown with the avoidance of most synthetic chemical inputs (e.g. fertilizer, pesticides, antibiotics, food additives, etc.), genetically modified organisms, irridation, and the use of sewage sludge. Also, for food to be organic, the farmland must have been free from chemicals for a number of years (often 3 or more). This is much better for the environment, since there are no chemicals which can leach into the waterways and harm aquatic life. It also is much better for soil health (soil erosion is a serious problem because it takes hundreds of years for soil to reform) and preserves the topsoil (a top layer of very productive soil with lots of microbes that help plants). Another benefit is your own health – foods grown with synthetic chemicals will still have amounts in them, even if they are washed beforehand, and chemicals are not good to ingest!

A big way to help the earth is to not drink bottled water. Spread the word about how environmentally unfriendly bottled water is to people in your house. Worldwide some 2.7 million tons of plastic are used to bottle water each year, according to EPI. The plastic most commonly used is polyethylene terepthalate (PET), which is derived from crude oil. "Making bottles to meet Americans' demand for bottled water requires more than 1.5 million barrels of oil annually, enough to fuel some 100,000 U.S. cars for a year," EPI's Arnold said. About 86 percent of plastic water bottles in the U.S. become garbage or litter, according to the Container Recycling Institute in Washington, D.C. Plastic debris in the environment can take between 400 and 1,000 years to degrade.

(http://news.nationalgeographic.com/news/2006/02/0224_060224_bottled_water_2.html)
Also, in the summer of 2007 Pepsi (the company that owns Aquafina) admitted to the public that Aquafina is tap water -

July 27 2007
NEW YORK (CNN) -- Pepsi-Cola announced Friday that the labels of its Aquafina brand bottled water will be changed to make it clear the product is tap water.
Coca-Cola does not have plans to change the labeling on its Dasani brand bottled water, a company spokesman told CNN, despite the fact the water also comes from a public water supply.
(http://money.cnn.com/2007/07/27/news/companies/pepsi_coke/)

In addition, water is not something that should be privatized –it is a basic human right. The United Nations Millennium Development Goal for environmental sustainability calls for halving the proportion of people lacking sustainable access to safe drinking water by 2015. Meeting this goal would require doubling the $15 billion a year that the world currently spends on water supply and sanitation. While this amount may seem large, it pales in comparison to the estimated $100 billion spent each year on bottled water. (http://www.earth-policy.org/Updates/2006/Update51.htm)

Encourage the use of reusable water bottles, such as Siggs and Nalgenes. These can be ordered with Greek letters on them, as can reusable coffee containers (and it's something that you'll probably have with you every day – a great way to show your letters!).

c. 

WATER AND APPLIANCE EFFICIENCY

One of the most important environmental steps individuals can take is reducing the amount of electricity, heat, and water they use. Most electricity today is generated by burning fossil fuels and producing steam which is then used to drive a steam turbine that, in turn, drives an electrical generator. The fossil fuels emit carbon dioxide into the atmosphere, and especially if coal is the fossil fuel being used, power plants also emit sulfur and nitrous oxides, causing smog and acid rain. A great website where you can find the best deals on appliances that save energy is energyguide.com. Also a good, short article from MSN money “Slash your electric bill in six easy steps” gives a good overview of what you can do.
http://moneycentral.msn.com/content/Savinganddebt/Finddealsonline/P42610.asp

Keep track of your progress via electricity and water bills! It will be exciting to see how much money you’re saving by making these changes.

FIRST STEPS TO TAKE:

Reduce water use. One of the easiest things to do is make people aware of it. Put up signs in the bathrooms that say, for example, “Please conserve water. Turn off the faucet when you’re brushing your teeth.” Another option is to put timers in the shower stalls, so people can see how long of a shower they’re taking.

Another way to reduce water use is to install low flow shower heads and low flow faucet attachments. They aerate the water, which results in a flow that is just as strong but with half the water usage. A nice low flow shower head costs less than $10, and is easy to install – usually just unscrewing the old one, and screwing in the new one.

Test your toilet for leaks. A leaky toilet can waste hundreds of gallons of water daily, and the test is really simple. Put 5 drops of food coloring in the tank of the toilet. If it shows up in the bowl in a few hours, then it means your toilet has a leak. Getting it fixed will save a lot of water!

Make stickers or little signs that can be taped down by lights, reminding to people to turn them off if they are the last one leaving the room.

Some houses have a person who, as part of their house duties, turns off the lights at night (someone who is a night owl and will be one of the last ones awake).

MORE COMPLEX STEPS TO TAKE

A major component of basically every energy bill comes from what is called "ghost load." Many people are unaware that even if an appliance is turned off, if it's still plugged in it is using electricity – common ones are cell phone chargers (if they're left plugged in when you're not charging your phone), radios, answering machines, printers, hairdryers, etc. An easy way to solve this problem of ghost loads is to plug all appliances into a powerstrip with an on/off switch, and when not using appliances, turn the switch to "off" on the power strip.

Heating water is, on average, the third biggest home energy cost, typically accounting for 20% of your bill. This can be reduced by using a “hot water jacket,” which covers your hot water heater and insulates it. They usually cost $10-20.

It doesn't make sense to replace all your appliances with more energy efficient ones, but if the house does need to buy a new appliance, make sure it is energy star rated – even if it costs a bit more up front, it will pay for itself in energy savings. The websites http://www.energyguide.com and http://www.energystar.com are good places to start looking when you need to buy something new.

Consider getting drying racks or putting some sort of shower rod (that people can use with hangers) in your laundry room, so clothes can be air dried. It will be much easier on the clothes and increase their lifetime, plus it will save energy when you don't use a dryer.

Motion-sensor lights in bathrooms, hallways etc. can save tons of energy, and will probably pay for themselves in less than a year with the energy bill saving if the hall/bathroom lights are usually left on all the time

Consider turning the thermostat down 1-2 degrees – each degree Celsius will save about 10% on your energy bill! If your room gets overheated, don't open a window – adjust your heater!

Helpful websites/articles:

http://moneycentral.msn.com/content/Savinganddebt/Finddealsonline/P42610.asp

www.50waystohelp.com

www.idealbite.com

Household Hazardous Waste (HHW)

By Erin Johnson

What is it?

The EPA defines household hazardous waste as "leftover household products that contain corrosive, toxic, ignitable, or reactive ingredients." This includes **products such as paints, cleaners, oils, batteries, pills, mercury-containing light bulbs, bleach, electronics and pesticides**. Hazardous products should always be kept in their original containers and should never be mixed with other hazardous products.

Disposal

Different products may need to be disposed of at different places. **Disposal through regular trash pick-up is illegal**. Tompkins County HHW will take most products. Specific drop-off information can be found on the Tompkins County Recycling website or through the site Earth911. If Tompkins County HHW won't take it, Earth911 can help find other facilities as well. Type in what needs to be disposed of and your zip code and the site will give you the closest facilities. Many electronics, such as cell phones, laptops and chargers can be donated to organizations who donate them, including the Cornell Computer Reuse Association. What you can do is keep a bin in your house for items such as these, and once you have a decent amount Tompkins County HHW can dispose of them.

Alternative Products

Many non-toxic alternatives exist that are safer for you and the environment (for example, non-toxic paints and non-chlorine bleach detergent), plus you don't have to worry about special disposal. Stores that sell the toxic bad guys usually have green products too, with all-natural, eco-friendly or non-toxic labels. For cleaning, regular vinegar, baking soda and lemon juice will also get the job done most of the time.

Facts

Just 1 gallon of improperly disposed-of oil can contaminate a million gallons of water.
Each year, 90,000 pets and 4,000 kids ingest antifreeze.
Improper disposal of hazardous waste can physically injure sanitation workers.
Americans generate 1.6 million tons of HHW per year.
The average home can accumulate as much as 100 pounds of HHW in the basement and garage and in storage closets.

More than 80% of rivers recently sampled tested positive for meds like antibiotics, birth control hormones, and antidepressants – one reason why it's very important to dispose of HHW properly, and not just in your trash can.

Trace amounts of pharmaceuticals end up in our water because most treatment plants aren't designed to filter them out.

The Starfish Project takes your leftover pills and distributes them in Africa.

Conventional cleaning products are responsible for about 10% of toxic-exposure calls to poison control.

High concentrations of detergents were found in 69% of waterways in a 2002 nationwide study this is very damaging to aquatic ecosystems.

Chlorine from bleach releases toxins in the air and can produce carcinogenic compounds if it gets past water treatment.

Electronic waste may contain up to 38 separate chemical elements including lead, mercury, cadmium, and carcinogens such as PCBs. If they end up in landfills, these chemicals get into soil and water.

Resources

Earth911:
http://earth911.com/

Tompkins County Recycling and Disposal:
http://www.recycletompkins.org/

Tompkins County HHW disposal drop-off instructions:
http://search.earth911.com/location/HGA1tGB/?what=hazardous+waste&where=14850&max_distance=25&country=US&province=NY&city=Ithaca&region=Tompkins&latitude=42.4488960552&longitude=-76.4921574811

EPA HHW:
http://www.epa.gov/epawaste/conserve/materials/hhw.htm

Non-toxic cleaning products:
http://www.care2.com/greenliving/healthy-home/nontoxic-cleaning

Cleaning with vinegar, baking soda and lemons:
http://housekeeping.about.com/od/environment/a/vinbaklemons.htm

Cornell Computer Reuse Association:
http://rso.cornell.edu/ccra/

Eco-friendly Cleaning Products
by Ileana Betancourt

Hot chocolate spills on the rug, the dishes need to be washed, or maybe you just think the windows need to be cleaned. Time to pull out the cleaning supplies from their liar under the kitchen sink or in the dark depths of the cleaning closet. Your general cleaning products may seem safe and protective, because after all, they keep unwanted germs and diseases away and assist in tidying up the area. Little may you realize, these hazardous cleaning products are part of the estimated 10 gallons of harmful chemicals which inhabit the average American household causing indoor air contamination, and imminent contamination of natural ecosystems and waterways. If you haven't already done so, now is the time to ask yourself, do the benefits of such toxic cleaners outweigh the risks that follow?

Every time you go to wash your hands with antibacterial soap, remember: the chemicals from the soap don't disappear forever down the drain. In fact, studies have shown that **antimicrobial contaminants are now present in 60% of U.S. water resources** that have been investigated. Harmful chemicals, when drained away, flow into rivers, lakes, and oceans spreading and causing lots of environmental harm.

The main components in cleaners to watch for consist of the chlorine (ex: bleach), phosphorus, ammonia, and the alkaline levels. These elements of cleaners contaminate the air and eventually drain into the water system. **Phosphorus buildups cause eutrophication** (a problem affecting many aquatic areas where nutrients cause the overgrowth of algae, to the point where a dead zone is created and no other animals can live there), **bleach kills living organisms, and chlorine causes all kinds of affliction and has been used globally for destruction** in World War I as well as the Iraq War. These substances not only pollute the waters, but alter pH levels which makes surviving impossible for many fish and animal species.

Ammonia alone may cause symptoms of many forms including watery eyes, respiratory problems, eye irritation, burns, skin irritation, nausea, high blood pressure, and many other issues as exposure increases. With all these hazardous effects on humans alone it is clear this manmade substance is extremely dangerous to the biosphere, as it results in soil acidification and eventually, as it works back into the water system, acid rain.

Cleaners contain not only these undesirable substances but a ton of other as well including: Alkyl and dimethyl benzyl ammonium chlorides, hydrogen choride, sodium ciliate, sodium carbonate, osophate, sodium chloride, ionic surfaction, triclosan and additionally as in certain air fresheners: acetone, diethylene, monothyether, propane,

perfume, and isoparaffinic hydrocarbons. These ammonias, phosphates, carcinogens, phthalates, and other chemicals range around very basic pH levels and many are derived from petroleum.

Reflecting on the list, you may wonder, what purpose does each chemical have anyway? There are so many specialty cleaning products with specialized purposes, however, most of your cleaning problems can be solved easily with simple home ingredients including Baking Soda, vinegar, and lemon juice. Baking soda is great for soaking up spills and absorbing smells completely. If you are not feeling too crafty or desire other options, many alternative biodegradable cleaners are available these days in local supermarkets and are widely available online, and they have been shown to work equally well at cleaning efficiently and safely – not only for your health but for the environment. Ask your cleaning service about the products they use and whether they would consider using "greener" products, or bear them in mind the next time you need to restock supplies.

Where to find eco-friendly cleaning products:

http://www.seventhgeneration.com/products
http://www.all-greenjanitorialproducts.com/
http://www.optionsproducts.com/
http://www.simplegreen.com/
http://www.methodproducts.co.uk/products.html
http://www.greenworkscleaners.com/
http://www.greenhome.com/products/housekeeping/
http://planetgreen.discovery.com/buying-guides/green-cleaning-supplies.html

Make Your own!:
http://forums.treehugger.com/viewtopic.php?f=1&t=6509

Sources:

http://www.greenyour.com/home/housekeeping/cleaning-products
http://www.livescience.com/environment/070806_green_cleaners.html
http://en.wikipedia.org/wiki/Chlorine#Purification_and_disinfection
http://www.environment-agency.gov.uk/business/topics/pollution/5.aspx
http://healthychild.org/resources/chemical-pop/ammonia/
http://www.bee.net.nz/background.html
http://planetgreen.discovery.com/go-green/green-cleaning/green-cleaning-statistics.html
http://www.greenhome.com/products/housekeeping/miscellaneous_cleaners/
http://www.treehugger.com/files/2007/01/how_to_green_your_cleaning.php
http://www.greenworkscleaners.com/?WT.srch=1
http://www.all-greenjanitorialproducts.com/

Environmental Impact of a Cotton T-shirt
By Chelsea Clarke

Greek houses order a lot of t-shirts, which is a great way to publicize events and also to have as a reminder of good times. But it's also important to understand what is behind all of the shirts that are ordered. Conventional cotton requires **1/3 of a pound of pesticides and herbicides to produce enough for just one typical t-shirt** and 3/4 of a pound for a pair of jeans! Worldwide, **cotton growers account for 25% of the world's agricultural pesticide and herbicide use**. Both human and environmental health is affected by this chemical use. Water and soil downstream from cotton fields become contaminated with pesticide and herbicide runoff, which affects biodiversity within the area. An estimated 3 million people exposed to these chemicals (farm workers and local people) are poisoned annually from pesticide use. Major environmental impacts of conventional cotton include habitat conversion, soil erosion and degradation, agrochemical use and water use contamination.

Growing organic cotton can reduce these consequences, but still does not address excessive water use from fabric production using cotton, not to mention our unacceptable over-consumption patterns. **Americans throw away about 70 pounds of clothes a year, 80% of which ends up in landfills**. Limiting overall use of cotton t-shirts and reusing fabric proves to be the real solution to reducing environmental impacts of cotton production. Here are some links to companies that produce t-shirts promising sweatshop-free or organic products. Talk to your pace/shirt design person, and ask them to consider it as an option next time they make shirts.

http://www.zazzle.com/pn/edun/overview
http://tsdesigns.com
http://www.missionplayground.com
http://www.cayugaxpress.com/ http://www.coopamerica.org/programs/sweatshops/sweatfreeproducts.cfm
http://www.sew-green.org/sew_shopping.html

(Source:WWF http://www.panda.org/about_wwf/what_we_do/policy/agriculture_environment/commodities/cotton/index.cfm and SewGreen http://www.sew-green.org/sew_fiber.html)

Suggestions for Individual and Group T-shirt Use from SewGreen (a local environmental clothing group in Ithaca)

Consider whether t-shirts are really needed. Would the intended recipients be just as happy with a group photo, a gift certificate, or a good meal? Would an alternative, such as a reusable tote made from recycled materials, be a good substitute?

If shirts are needed to identify staff at an event, set up a way for them to be returned, laundered, and reused

Still need shirts? Order from a source that will provide organic cotton shirts printed with non-toxic inks, and check the labels for earth-friendly fabrics, Fair Trade, and union-made clothing.

Remember your purchase and distribution of t-shirts is only part of the entire product life cycle. Order only as many shirts as you need and have a plan for responsible disposal of any leftovers.

Before you order, contact the vendor and ask for product information, for example:

- Are the shirts 100 % certified organic cotton?
- Are the dyes non-toxic?
- Is the ink used for printing non-toxic? If not, ask if the shirts can be shipped directly to a non-toxic printer.
- Ask what “recycled” means. Is the product 100 percent recycled?
- Where is the product made? Are the workers adults who are paid fairly and treated with respect for their health and wellbeing?
- How far must the products be shipped? If you have a choice, consider using a vendor that is closer to you.

Pass on clothes you no longer want by having a clothing swap, donating them to thrift and charity shops, or selling on consignment.