

Hillsborough Recycling

Sustainable materials management
in Hillsborough County

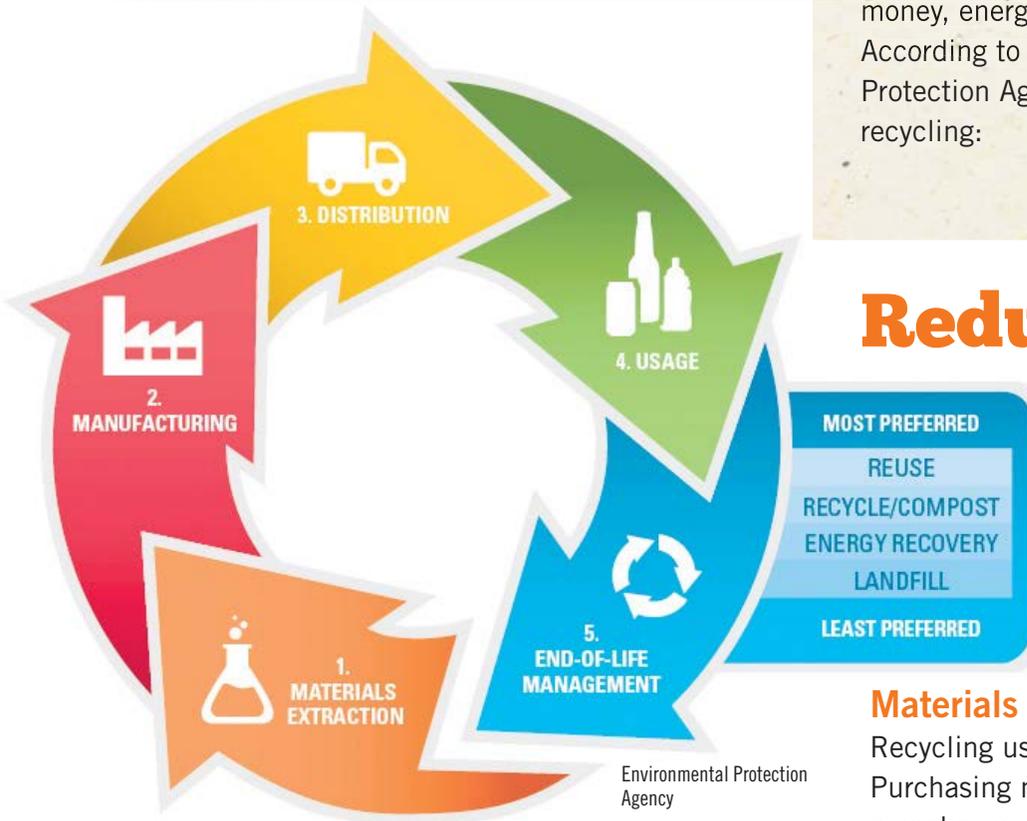




Forty-two percent of greenhouse gas emissions in the United States is associated with the energy used to produce, process, transport and dispose of the food we eat and the goods we use.

Reducing, reusing and recycling reduces waste and saves money, energy and natural resources. According to the Environmental Protection Agency, reducing, reusing and recycling:

- Reduces the amount of waste sent to landfills and incinerators
- Conserves natural resources such as timber, water and minerals
- Prevents pollution by reducing the need to collect new raw materials
- Saves energy and money
- Reduces greenhouse gas emissions that contribute to global climate change
- Helps sustain the environment for future generations
- Helps create new well-paying jobs in the recycling and manufacturing industries in the United States



Reduce your carbon footprint

Every product that we use goes through a life cycle. Each stage of the life cycle has environmental impacts. By reducing our use of materials in every stage of the life cycle, we can minimize our environmental impact.

Materials extraction – Buy products made with recycled content.

Recycling uses less energy than extracting and processing new raw materials. Purchasing new products that contain recycled content saves energy and reduces greenhouse gas emissions.

Manufacturing – Reduce the amount of new products that you buy.

To reduce waste, you should choose reusable over disposable items and reuse, repair, share and donate your products.

Distribution – Choose sustainable and local products.

When possible, you should buy locally and sustainably produced products to reduce greenhouse gas emissions associated with transportation.

Usage – Power down and unplug.

Purchasing appliances that are energy efficient, unplugging chargers and electronics when they are not in use and using power management features will reduce your energy use.

End-of-life management – Donate, recycle and compost.

How you manage unwanted goods at the end of their current life can make a big difference in your environmental footprint. Donating rather than discarding usable items, recycling whenever possible and considering diverting organic waste from landfills by composting at home can reduce your environmental impact.

The recycling process includes three steps:

- 1 collection and processing
- 2 manufacturing
- 3 purchasing products made from recycled materials

These three steps form a continuous loop, represented by the familiar recycling symbol.

Hillsborough County: Leading the way to 75 percent by 2020

In 2008, the Florida Legislature established a new statewide recycling goal of 75 percent to be achieved by the year 2020.

In 2010, Florida's recycling rate was 31 percent. By 2015, that had risen to 54 percent.

Hillsborough County is among the state's leaders in recycling. In 2015, Hillsborough County achieved a traditional recycling rate of 49 percent and, with waste-to-energy recycling credits included, an overall recycling rate of 72 percent.

What you can do: reduce and reuse

- Buy used instead of new.
- Look for products that use less packaging and buy in bulk.
- Choose reusable over disposable items.
- Maintain and repair products so that they won't have to be replaced as frequently.
- Borrow, rent or share items that are used infrequently.
- Donate unwanted items in usable condition instead of discarding them.
- Have statements, bills and catalogs delivered electronically.
- Compost food scraps instead of throwing them away.
- Recycle!

What you can do: at work

- Bring your own reusable silverware and cup rather than using disposable items.
- Save documents to your hard drive or email them to yourself instead of printing hard copies.
- Change your printer settings to use the "fast draft" setting and print double-sided.
- Choose reusable paperclips over staples.
- Reuse envelopes and file folders.
- Purchase recycled paper.
- Purchase energy-efficient items with the ENERGY STAR logo or items that are EPEAT registered.
- Start a recycling program or green team to help identify ways of reducing waste.

In 1960, the average American threw away
2.7 POUNDS OF TRASH PER DAY.

Today, the average American throws away
4.4 POUNDS OF TRASH PER DAY.

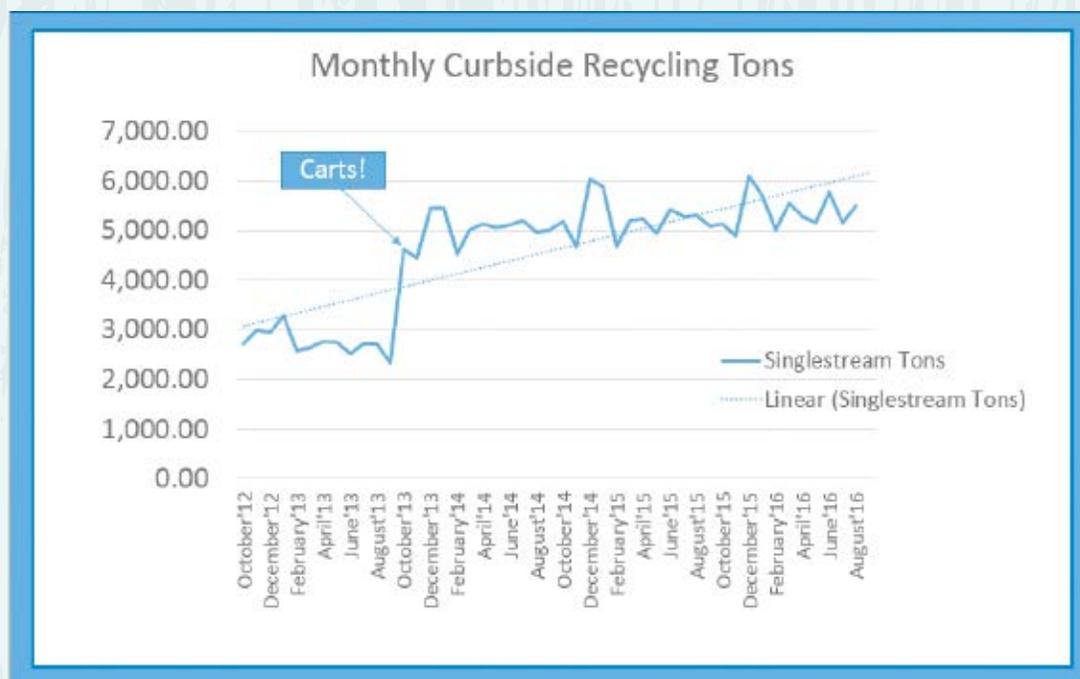
OF THAT:

34% or 1½ pounds, is recycled or composted.

13% or just over a half a pound, is burned and converted to energy.

53% or more than 2 pounds, is discarded, mostly into landfills.

More than 250 million tons of trash is generated each year in the United States.



Going beyond the text: The art of persuasion

Look through the *Tampa Bay Times* for articles about environmental issues that concern you. In a small group, discuss how you, individually and as a group, can make a difference in your community. Write down your ideas. Like most complicated problems, environmental issues have many sides and many possible solutions. Choose one of the environmental issues you have discussed and research this issue. Follow the news coverage of this environmental issue. Familiarize yourself with the pros and cons of each side. Write a letter to the editor of the *Times* supporting the side you believe is right. Be sure to support your ideas with specific examples and avoid logical fallacies.

In 1980,
Americans recycled
and composted
15 million tons.

In 2013,
Americans recycled
and composted
87 million tons.

Diverting these materials from landfills prevented the release of about 186 million metric tons of carbon dioxide into the air in 2013 – equivalent to taking more than 39 million cars off the road for a year.



The **DOs** and **DON'Ts** of curbside residential recycling in Hillsborough County

DO recycle these items in your blue cart. **DO** place recyclables loose in your blue cart, not bagged.

- Clean plastic bottles and containers
- Clean aluminum cans, food trays and pie tins
- Clean steel and tin cans and containers
- Clean glass bottles and jars
- Dry paper, newspaper and junk mail
- Clean milk, juice and broth cartons and boxes
- Dry cardboard and paperboard*

* DO flatten, cut down or fold cardboard boxes to fit in the cart.

Recycling tip

Containers should be rinsed and free of food residue. Paper, cardboard and paperboard should be clean and dry. When dirty or wet items are placed in your blue cart, they can contaminate the entire load, meaning that none of the items can be recycled.



DON'T recycle these items in your blue cart. These items are not recyclable in the county's curbside program and should never be placed in your blue cart.

- Plastic bags, film or tarps
- Food waste
- Food or candy wrappers
- Electronics
- Light bulbs
- Batteries
- Syringes or needles
- Windows or mirrors
- Ceramics
- Artificial plants or trees
- Soiled or wet paper, cardboard or paperboard
- Cords or wires
- Large plastic items such as pools, coolers or toys
- Diapers
- Rope, twine, straps or bungee cords
- Garden or pool hoses
- Clothes hangers
- Rubber items
- Clothing, fabric or shoes
- Styrofoam
- Yard waste
- Pressurized tanks
- Construction debris
- Pots, pans or other cookware
- Plates, bowls, drinking glasses, mugs, cutlery or other dining ware





Oops! recycling cart notification tags

If you place items in your blue cart that are not recyclable, your cart will not be emptied and an "Oops" tag will be placed on it. Just remove the problem items and place your recycling cart at the curb on your next regularly scheduled recycling day.

How to use your carts

- Fill the gray roll cart with household trash and the blue roll cart with clean recyclables.
- Everything must fit inside the carts in order to be collected.
- Carts must be at the curb by 6 a.m. on your collection days.
- Look for the arrows on the roll cart lids. Place the roll carts at curbside with the arrows pointed toward the street and the handles toward your home.
- Keep your roll carts at least three feet away from the curbside, three feet between carts and three feet away from mailboxes, vehicles, trees or other obstacles.

When in doubt, leave it out

If you're not sure if an item is recyclable or not, play it safe and discard it in your gray trash cart. Hillsborough County's curbside residential recycling system is only designed to process the types of materials listed as "DOs" above.

When non recyclable items are placed in your blue cart, they can contaminate the entire load, meaning that none of the items can be recycled.

No plastic bags

Plastic bags should never be placed in your blue cart.

Plastic bags get tangled in recycling equipment. Not only can this damage the equipment, but workers must manually remove the plastic bags, a difficult, dirty and potentially dangerous task. Instead, recycle your plastic bags at your local grocery or big box store or discard them in your gray trash cart.



Plastic bags tangled in recycling equipment.

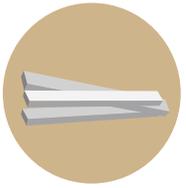
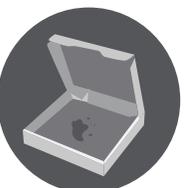


Workers must manually clean plastic bags from recycling equipment.

Oops... Your Recycling Cart was Contaminated

There were unrecyclable items in your blue recycling cart. Please help us reduce contamination by placing only accepted recyclables in your blue cart.

These items should NOT go in your blue cart:

 Plastic Bags	 Electronics	 Clothing/Shoes
 Cords/Wires	 Rope/Twine	 Garden Hoses
 Construction & Demolition Debris	 Clothes Hangers	 Household Hazardous Waste
 Soiled Paper Items	 Food Waste	 Diapers

Thank you for recycling correctly. Contact us for information about how to properly dispose of these items and other recycling questions:


Hillsborough County Florida | (813) 272-5680 | HCLGov.net/Recycling

Source: Hillsborough County



Household hazardous waste

Many common household products contain hazardous ingredients and require special care when disposing of them. These products are referred to as household hazardous waste, or HHW.

HHW products contain ingredients that are toxic, flammable, corrosive or reactive. Common examples of HHW items are cleaners, solvents, paints, stains, pesticides, herbicides, antifreeze, motor oil, nail polish remover, flares, propane tanks, ammunition, pool chemicals and rechargeable batteries.

Improper disposal of HHW can pollute the environment, endanger wildlife and threaten human health.

- HHW is not recyclable in your blue cart.
- HHW should not be discarded in your gray cart.
- Never pour HHW down the drain or toilet, on the



ground or into storm sewers.

- All HHW items should be taken to a Household Hazardous Waste Collection Center for proper disposal.

Safe handling of household hazardous waste

Here are some tips from the Environmental Protection Agency to help you use, store and dispose of HHW safely:

- Always follow instructions for use, storage and disposal carefully to prevent accidents.
- Never store hazardous products in food containers to prevent accidental poisoning. Keep HHW in their original containers, and never remove labels.
- Never mix leftover HHW with other products. Incompatible products might react, ignite or explode.

Accepted HHW items

Containers must not exceed 10 gallons in size. Containers that are empty or have dried material may be discarded in the regular trash.

- Aerosols
- Ammunition, flares and fireworks
- Rechargeable and lead batteries (single-use alkaline batteries can go in the trash)
- Cleaners
- Cooking oils and grease
- Diesel fuel
- Fertilizers
- Fire extinguishers
- Fluorescent light bulbs (limit 10)
- Fuel oil
- Gasoline
- Herbicides
- Insecticides
- Mercury thermostats and other mercury-containing devices
- Motor oil
- Paint (limit 10 1-gallon and five 5-gallon containers. Containers must be sealed and not leaking.)
- Primer, thinner and stripping agents
- Pool chemicals
- Propane tanks (Limit five tanks of 30 pounds or less)
- Varnish

The following items are not accepted at the Household Hazardous Waste Collection Centers:

- Biomedical waste and sharps
- Medications and pharmaceuticals
- Commercial waste
- Explosives
- Radioactive materials
- Electronics (please take to Community Collection Centers)

Paint

Household paint also is accepted at Hillsborough County's five Community Collection Centers. See Pages 6-7 for more information.



What is waste-to-energy?



Trucks enter the Hillsborough County Resource Recovery Facility.
Skip O'Rourke, *Times* file photo



Garbage is lifted by crane and placed into a hopper inside the Hillsborough County Resource Recovery Facility.
Skip O'Rourke, *Times* file photo



Workers at the Hillsborough County Resource Recovery Facility monitor all systems in a control room deep inside the plant and control the production of electrical power from municipal waste.
Skip O'Rourke, *Times* file photo



At the Hillsborough County Resource Recovery Facility, huge furnaces burn municipal waste to produce electricity.
Skip O'Rourke, *Times* file photo



Steam produced from the burning of municipal waste turns a turbine to power a generator that produces electricity at the Hillsborough County Resource Recovery Facility.
Skip O'Rourke, *Times* file photo

Waste-to-energy plants burn municipal solid waste – your trash – and use the heat to generate electricity. Waste-to-energy reduces greenhouse gases, generates clean energy and recycles metal.

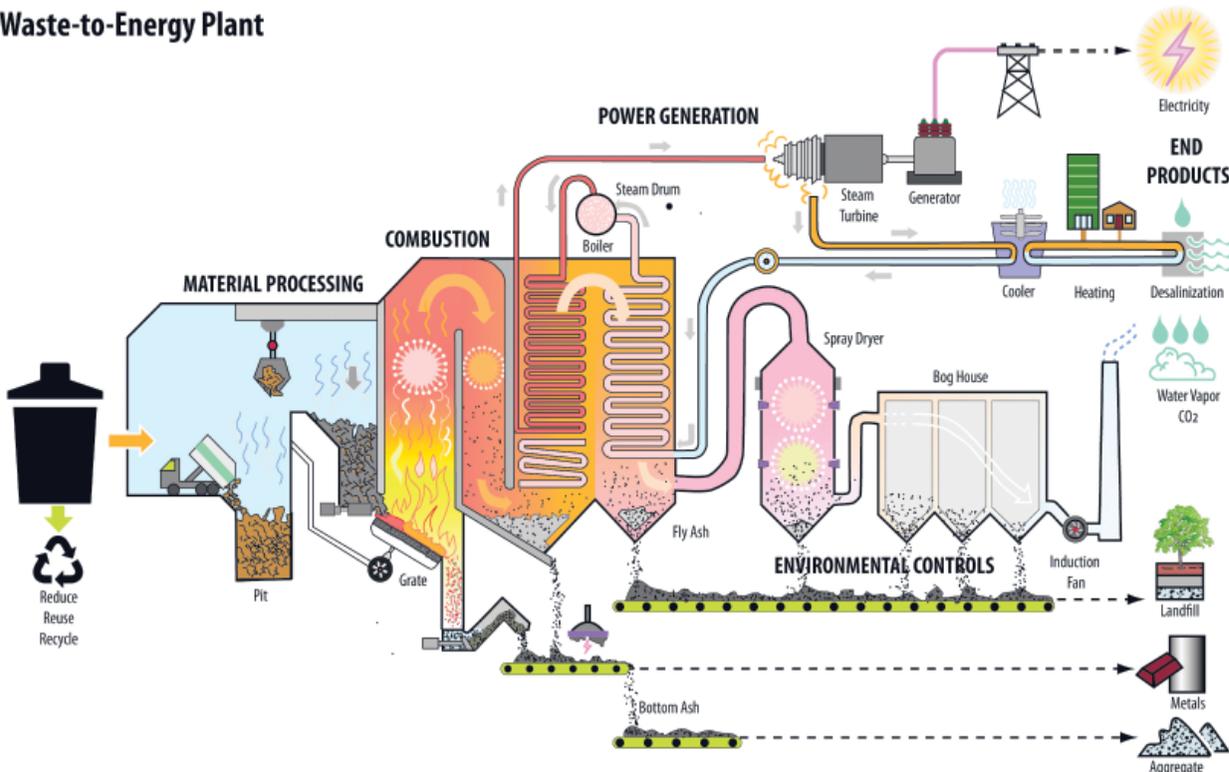
- Of every 100 pounds of waste, more than 85 pounds can be burned as fuel to generate electricity.
- One ton of waste burned in a waste-to-energy plant generates about 481 kilowatt hours (kWh) of electricity, enough to power about 16 U.S. households for one day.
- Burning waste also reduces the amount of material that is landfilled by 87 percent. In a waste-to-energy plant, one ton (2,000 pounds) of trash is reduced to just 300 – 600 pounds of ash.

In Hillsborough County, solid waste is processed at the Hillsborough County Resource Recovery Facility. The facility burns approximately 562,000 tons of garbage annually, generating 293,970,000 kWh of energy – enough to power approximately 26,000 homes.

Watch an animation of how a waste-to-energy plant works at [youtube.com/watch?v=CSI7i8b-qOI](https://www.youtube.com/watch?v=CSI7i8b-qOI).

Take a virtual tour of a waste-to-energy plant at [youtube.com/watch?v=Xwy0M5PSsFg](https://www.youtube.com/watch?v=Xwy0M5PSsFg).

Waste-to-Energy Plant



Source: National Energy Education Development Project

How does waste-to-energy work?

In a waste-to-energy plant, municipal solid waste, or trash, is incinerated to create thermal energy, which is then converted to mechanical energy in order to generate electricity. Here's how it works:

1. Waste is burned to produce heat (thermal energy).
2. The heat is used to turn water into high-pressure steam in a boiler.
3. The rising steam turns the blades of a turbine, converting the thermal energy into mechanical energy.
4. The turbine powers a generator, producing electricity.

Your trash makes electricity



1



Trash is picked up at curbside and delivered to the Hillsborough County Resource Recovery Facility.

2

At the Resource Recovery Facility, trash is incinerated to produce electricity.



3



This electricity is used to power public utilities facilities and sold to electric utilities.

Skip O'Rourke, *Times* file photo

4

Metal is removed from the ash and recycled.



5

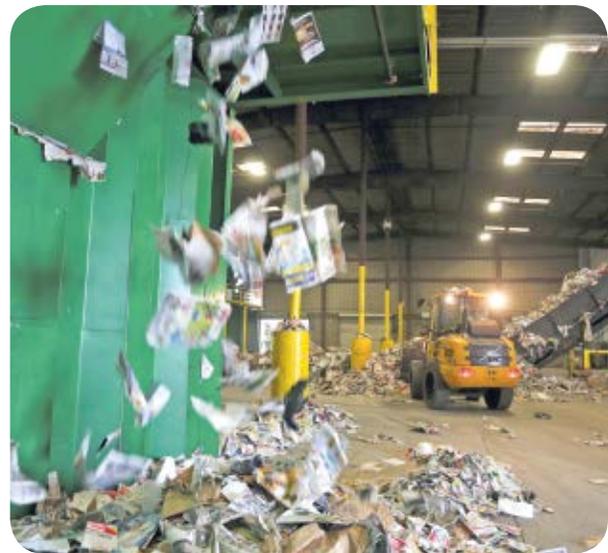


The remaining ash is landfilled.

James Borchuck, *Times* file photo



Baled aluminum cans await transport at Progressive Waste Solutions' material recovery facility. Scott Keeler, *Times* file photo



Newspapers and mixed papers float to the ground to be baled for recycling at Progressive Waste Solutions' material recovery facility. Scott Keeler, *Times* file photo

What is single-stream recycling? How does it work?

With single-stream recycling, all types of recyclable items are placed together in one bin, with no need to separate the different types of recyclables. An automated truck collects the recyclables, which get sorted at a separate site called a material recovery facility (MRF).

Hillsborough County's recyclables are processed at Progressive Waste Solutions' MRF in St. Petersburg. At the MRF, materials are sorted by a combination of workers and automated systems such as magnets, optical scanners and sorting screens. Once the materials are sorted, they are baled into compacted cubes (paper), placed into shipping containers to be shipped to domestic or overseas markets or, in some cases, transported to another site for further processing (glass). The MRF can process 400 tons of recyclables every day.

Sources: *Encyclopaedia Britannica*, Green Machine, HowStuffWorks, *Tampa Bay Times*

Watch a video of the St. Petersburg Progressive Waste Solutions MRF in action at [youtube.com/watch?v=jkvihLpyaAM](https://www.youtube.com/watch?v=jkvihLpyaAM)

Going beyond the text: A disposable world

Make a list of all the disposable products you can think of and what they are used for. Look through the ads in the *Tampa Bay Times* for more ideas. Next to each item, write down what people used before the disposable product was invented. Are these "non disposable" products still available? Who uses them and why? Discuss these questions as a class.

Next, look at the general news and business news sections of the *Times*. By reading through the headlines and a few of the articles in these sections, try to determine whether the economy is good or bad. Look especially for articles about buying trends or popular products. Based on your conclusions about the economy, write a few paragraphs on the effect the current economy will have on how much people will throw away.

Put the ideas from the first part of the exercise and the second part together. Disposable products affect both the environment and the economy. Create a graphic organizer showing how these two ideas are related. Share what you have learned with your class.

Sources: Covanta Ltd., Hillsborough County, HowStuffWorks, Progressive Waste Solutions, U.S. Energy Information Administration

Hillsborough County Community Collection Centers

Hillsborough County offers five Community Collection Centers (CCCs) for residential household customers to drop off items unable to be collected curbside.

Common types of items accepted at the CCCs include:

- Household paint
- Household electronics (no commercial printers or copiers)
- Tires (up to 12 per year)
- Household appliances (no commercial refrigeration or A/C units)
- Furniture
- Generable recyclables

Residents must show a photo ID and their property tax bill to drop off tires, appliances or furniture.

A property tax bill is not necessary for paint and electronics drop-off.
No ID is necessary for general recyclables drop-off.

Community Collection Center locations

Alderman Ford

Mon – Sat, 7:30 a.m. – 5:30 p.m.
9402 County Road 39
Lithia, FL 33547

Hillsborough Heights

Mon – Sat, 7:30 a.m. – 5:30 p.m.
6209 County Road 579
Seffner, FL 33584

Northwest County

Mon – Sat, 7:30 a.m. – 5:30 p.m.
8001 W Linebaugh Ave.
Tampa, FL 33625

South County

Mon – Sat, 7:30 a.m. – 5:30 p.m.
13000 U.S. 41
Gibsonton, FL 33534

Wimauma

3rd Saturday monthly, 8 a.m. – 1 p.m.
16180 West Lake Drive
Wimauma, FL 33598

Electronics

Household Electronics are accepted only at Hillsborough County Community Collection Centers.



WHAT DO I DO WITH...



Batteries?

Batteries are not recyclable in your blue cart.

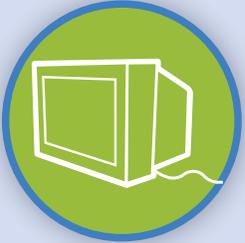
- Single-use alkaline batteries may be thrown in your regular trash.
- Rechargeable batteries are considered HHW and should be taken to a Household Hazardous Waste Collection Center.
- Lead-acid batteries, such as auto, motorcycle, boat and lawn mower batteries, may be taken to either a Household Hazardous Waste Collection Center or a Community Collection Center.



Cooking oils?

Cooking oils and grease of any type are not recyclable in your blue cart and should never be poured down the drain.

Containers of used cooking oils can be taken to a Household Hazardous Waste Collection Center or a Cooking Oil Recycling Effort drop-off station. See Pages 12-13 for more information.



Electronics?

Household electronics may contain lead, mercury and other toxic materials and are not recyclable in your blue cart.

Small appliances that contain only small amounts of electronic components, such as toasters or hairdryers, lighting fixtures and car headlights, can be safely disposed of in your gray trash cart.

Recycle other household electronics, such as computers, televisions and monitors, printers and cellphones, at a Community Collection Center.



Light bulbs?

Light bulbs of any type are not recyclable in your blue cart. Traditional incandescent bulbs can be discarded in your gray cart. Compact fluorescent lamps and fluorescent tubes should be recycled at a Household Hazardous Waste Collection Center.



Medications?

Prescription and over-the-counter medications of any type are not recyclable in your blue cart and should never be flushed down the toilet or drain.

It's important to dispose of unwanted and expired medications properly to prevent misuse and abuse; poisoning of children and pets; and environmental pollution.

Residents can safely dispose of medications in Hillsborough County Sheriff's Office medication dropboxes. Dropboxes are available 24 hours a day, seven days a week. Visit hcs0.tampa.fl.us/Articles/Articles/Prescription-Drug-Drop-Boxes.aspx for locations and more information.



Sharps?

Syringes and needles (sharps) are not recyclable in your blue cart and should never be discarded in the trash.

Residents can safely dispose of used syringes and needles through the free Bay Area Sharps Disposal Program. Visit hillsborough.floridahealth.gov/programs-and-services/environmental-health/biomedical-waste for more information.



Yard waste?

Yard waste of any type is not recyclable in your blue cart. Residential customers receive weekly curbside yard waste collection.

Report illegal dumping

Please help us keep Hillsborough County clean by reporting illegal dumping. You can do so by reporting violations to our Customer Service Center 24 hours a day. Visit HCFLGov.net/AtYourService and click on Code Violation Request.

Going beyond the text: **Sorting trash**

Knowledge is power, especially when it comes to knowing what can and cannot be recycled. Look through the *Tampa Bay Times* to find items that can and cannot be recycled. Identify items that are shown in photographs, advertisements or comics or mentioned in articles that could be recycled and those that cannot be recycled. Make a list for each. Group the items by type of waste (i.e., plastic, glass, wood, metal, etc.). For your list of items that cannot be recycled, identify which are ignitable, corrosive, reactive or toxic and group them by the disposal method you would use.

Now it is time to be creative. Choose one item from each list and do some research about its chemical components. If it can be recycled, what is the appropriate recycling process? If it cannot be recycled, what are the chemicals that cannot be recycled and why? Write and illustrate a short story or epic poem for each type of waste from the viewpoint of that waste. Share your stories with your classmates and teacher.

Cooking il Recycling Effort



Be a grease buster!

DON'T

- Don't put grease or cooking oil down the sink, even if you follow it with hot water or soap.
- Don't flush cooking oil and grease down the toilet.
- Don't put greasy foods down the drain or in the garbage disposal.

DO

- Do scrape leftover food and grease into the trash before washing pots, pans and dishes.
- Do use a fine mesh strainer in your sink to prevent food and other debris from going down the drain.
- Do clean out grease and leftover foods from the sink and dispose in the trash.
- Do minimize what goes down the drain.

Used cooking oil and grease are a serious problem for home plumbing and Hillsborough County's wastewater collection system.

Cooking oil that's poured down the drain doesn't disappear. It gels and solidifies into thick layers inside drainpipes, sewage pipelines and sewage lift stations, constricting water flow. The result not only can back up home plumbing, but also can cause lift station pumps and other equipment to malfunction. That can create sewage back-ups, overflows onto streets and foul odors in homes and neighborhoods. It's messy, smelly and costly to clean up.

Recycling used cooking oil and grease:

- Helps to prevent fat, oil and grease clogs in home plumbing and the sewer collection system.
- Helps to prevent sewer overflows and the negative impacts associated with them, including algae blooms, fish kills and public exposure to pathogens.
- Helps to reduce costly home plumbing and utility maintenance.



How to recycle your used cooking oil and grease

All cooking oils, including frying oils and bacon and hamburger drippings, can cause problems in home plumbing and the sewage collection system. Here's what to do:

- Carefully pour cooled cooking oil into a large, sturdy plastic or wax-coated container, such as the original container, a juice carton or a collection jug.
- Cap the container and store in a cool, safe location until it is full.
- Don't mix the grease with any other liquids or products.
- Once the container is full, bring it to a collection station or to a Hillsborough County Household Hazardous Waste Collection Center.
- Repeat!
- Used motor oil is not accepted at collection stations.

Types of oils and grease that can be recycled

- Canola oil
- Corn oil
- Lard
- Olive oil
- Peanut oil
- Sesame oil
- Soybean oil
- Sunflower oil
- Vegetable oil

For more information

Contact the Hillsborough County Public Utilities Department Grease Management Program at 813-272-5977, ext. 43515 or visit HCFLGOV.net/CORE.



In 2015,
the
Hillsborough
County
Cooking Oil
Recycling
Effort
program
collected
3,726
gallons of
used cooking
oil and
grease.



Used cooking oil is also accepted at Hillsborough County's three Household Hazardous Waste Collection Centers:

Sheldon Road

First Saturday monthly, 8 a.m. – 2 p.m.
9805 Sheldon Road, Tampa, FL 33635

South County

Second Saturday monthly, 8 a.m. – 2 p.m.
13000 U.S. 41, Gibsonton, FL 33534

East County

Third Saturday monthly, 8 a.m. – 2 p.m.
6209 County Road 579, Seffner, FL 33584

Residents must show a photo ID at Hillsborough County Household Hazardous Waste Collection Centers. Commercial or excessive quantities of waste will not be accepted.

Collection Stations

Bring your container of used cooking oil and grease to one of these locations at any time. Look for the brightly colored, free-standing cabinet with the Cooking Oil Recycling Effort identification.

Hillsborough County Public Utilities Department

Northwest Customer Service Center
15610 Premiere Drive, Tampa, FL 33624

Northlakes Recreation Center

2640 Lakeview Drive, Tampa, FL 33618

Woodlake Park

9207 Woodlake Blvd., Tampa, FL 33615

Hillsborough County Public Utilities Department

Brandon Support Operations Complex
332 N Falkenburg Road, Tampa, FL 33619

Town 'N Country Pump Station

5505 Town 'N Country Blvd., Tampa, FL 33615

Covington Garden Pump Station

6505 Covington Garden Drive, Tampa, FL 33572

Austin Davis Public Library

17808 Wayne Road, Odessa, FL 33556

Bloomington Regional Library

1906 Bloomington Ave., Valrico, FL 33596

Jimmie B. Keel Regional Library

2902 W Bearss Ave., Tampa, FL 33618

Seffner-Mango Branch Library

410 N Kingsway Road, Seffner, FL 33584

SouthShore Regional Library

15816 Beth Shields Way, Ruskin, FL 33573

Upper Tampa Bay Regional Public Library

11211 Countryway Blvd., Tampa, FL 33626

Northwest County Solid Waste Transfer Station

8001 W Linebaugh Ave., Tampa, FL 33625

Riverview Branch Library

10509 Riverview Drive, Tampa, FL 3357

Brandon Regional Library

619 Vonderburg Drive, Brandon, FL 33511

78th Street Community Library

7625 Palm River Road, Tampa, FL 33619

Hillsborough County Environmental Protection Commission

3629 Queen Palm Drive, Tampa, FL 33619

6th Street Utility Pump Station

1306 Sixth St. SE, Ruskin, FL 33570

Fishhawk Utility Pump Station

15401 Fishhawk Blvd., Lithia, FL 33547

Durant Road Utility Pump Station

5125 Durant Road, Dover, FL 33527

Via Viva Utility Pump Station

980 Via Viva, Brandon, FL 33511

Going beyond the text: Making good choices

Though many of us know the difference between making “green” and “not-so-green” choices, we are often convinced by highly effective advertising to make choices that may be harmful to the environment. Sometimes the ads focus on convenience or economics. Advertisers rely on the use of rhetorical appeals to persuade readers to purchase their products. Rhetoric means using language effectively to persuade, inform, educate or entertain. Look up the three types of rhetorical appeals: pathos, logos and ethos. Discuss the definitions with your classmates.

Look at the advertisements in the electronic edition of the *Tampa Bay Times* and select several examples of ads that may result in a negative result for the environment. Analyze your selections carefully, making brief notes on the arguments or techniques used to influence buyers. For example, is the product created using non sustainable sources? Will use of the product create an excessive amount of non-recyclable materials?

In a small group, discuss your findings. On a piece of construction paper or posterboard, create an ad that might convince the best-informed of readers not to purchase this product. Share your ad with your classmates.

Hillsborough County is always adding new collection locations. Visit HCFLGov.net/CORE to find a location near you.

Hillsborough County anti-litter campaign

Litter is more than just a cosmetic problem. It pollutes the environment, harms wildlife, lowers property values and impacts our quality of life.

Litter clogs storm drains and sewers and ends up in our waterways. Wildlife – and pets – get tangled, stuck or cut on litter. Roadside food waste attracts animals to dangerous roads. Littered open containers become breeding grounds for mosquitoes. Litter thrown from cars distracts drivers, obscures vision and damages windshields.

It also costs us money: Keep America Beautiful estimates that \$11.5 billion is spent on litter reduction and cleanup activities each year in the United States.



Hillsborough County combats litter through an active partnership with Keep Tampa Bay Beautiful. Activities include:

- Adopt-A-Road/Spot/Park/Shoreline programs (ongoing)
- The Great American Cleanup (spring)
- Hillsborough River and Coastal Cleanup (September)
- America Recycles Day (November)
- Education program in Hillsborough County Public Schools (ongoing)

Call 813-221-8733 or visit keeptampabaybeautiful.org for more information on these and other initiatives.



Drive it home – keep our paradise litter-free

Hillsborough County has teamed up with the Florida Department of Transportation's statewide roadside litter prevention campaign to reduce littering on Florida highways, promote pride in the beauty of Florida's landscapes and educate Florida motorists about the dangers and hazards of roadside litter. Learn how you can join the team at CleanFLRoads.com.

How you can help

- Set an example by disposing of trash in proper receptacles. Speak up if you see friends, family or co-workers littering.
- Never throw anything out of the car window. Carry a litter bag in your car. If you smoke, use an ashtray rather than flicking your butt out the window.
- Ensure that trash and recycling receptacles are properly covered when placed outside for collection.
- Secure your load when you carry trash or loose cargo in or on top of your vehicle.
- Pick up one piece of litter a day.
- Report littering activity anonymously by calling the Litter Hotline at 1-877-Y-Litter. Have the license tag number, date, time and location of the incident ready to report.
- Volunteer for a cleanup with Keep Tampa Bay Beautiful or another environmental organization.

Sources: CleanFLRoads.com, Keep America Beautiful



Mosquito prevention



Mosquitoes are one of the deadliest animals on Earth. They cause millions of deaths every year by carrying and spreading diseases such as malaria, dengue, West Nile virus, chikungunya and Zika.

Just a few inches of water is all it takes to breed thousands of mosquitos. The good news is that cleaning up your yard will help to eliminate mosquito breeding habitats. To help keep mosquitoes under control around your home, follow these simple tips:

- **Rain gutters:** Keep clear of leaves and other debris.
- **Low areas:** Do not overwater lawns or gardens.
- **Fountains and bird baths:** Clean or hose out weekly.
- **Potted plant saucers:** Don't overwater. Flush out saucers with a hose or drill holes in the bottom to allow for better drainage.
- **Water bowls for pets:** Rinse and fill with fresh water one to two times a week.
- **Containers:** Cover or store containers upside down.

- **Leaky hoses:** Replace damaged hoses and fix leaky faucets and pipes.
- **Pools and spas:** Maintain even when not in use. Remove standing water from the top of pool and spa covers.
- **Tires:** Drill holes in tire swings. Recycle used tires or store in a covered area.
- **Rot holes in trees:** Check with an arborist for the best way to manage water or fill cavities.
- **Ponds:** Stock ornamental ponds with mosquitofish. Keep ponds free and clear of excess vegetation.
- **Boats:** Cover with a tight-fitting tarp.
- **Trash bins:** Keep lids shut tight and remove any water that may have accumulated inside.

Sources: Hillsborough County, World Health Organization

Find more mosquito fighting tips at HCFLGov.net/MosquitoNinja.

Only water down the storm drain

Stormwater runoff occurs after a rainfall. Water flows over impervious surfaces such as driveways, sidewalks, streets, parking lots and roofs, collecting debris, dirt and pollution. This water enters storm drains, reaching our neighborhood streams, ponds, lakes, bays, wetlands and oceans – and, eventually, our drinking water.

Debris such as plastic bags, bottles and cigarette butts can wash into water bodies and harm aquatic life, while other hazardous waste such as insecticides, herbicides, paint, motor oil, pet waste and heavy metals can cause illness not only to aquatic life, but also to humans.

Always recycle or properly dispose of household hazardous waste such as pesticides, motor oil, paint and household cleaners. Never pour HHW down the drain or toilet, on the ground or into storm sewers.

Source: Southwest Florida Water Management District

That's a lot of litter

MORE THAN 51 BILLION PIECES of litter appear on U.S. roadways each year. That's **6,729 ITEMS** per mile of roadway.

TOBACCO PRODUCTS compose roughly **38% OF ALL** U.S. roadway litter.



22% PAPER

are the next-largest types of materials on U.S. roadways.



19% PLASTIC

\$11.5 BILLION

is spent on litter reduction and cleanup activities each year in the U.S.



Source: Keep America Beautiful

Going beyond the text: **Mixing science and literature**

Now that you have learned about the importance of reducing your carbon footprint, imagine a future if people did not conserve resources, recycle and care about the environment.

Working in small groups, create a future world that has been shaped by people disregarding the conservation message presented by Hillsborough County.

Write a fully developed paragraph describing your world. Using the front page of the *Tampa Bay Times* as a model, create a newspaper for this future world you have created. Each student in your group should be responsible for different stories, giving the reader a good view of this new world. Share the description of your world and your stories with your classmates.

About Hillsborough County



Hillsborough County Florida

Hillsborough County's Solid Waste Management System is an integrated operation that includes the collection, transportation and disposal of all the solid waste generated or brought into the system. Hillsborough County residential solid waste customers receive weekly curbside recycling collection service.

The mission of Hillsborough County government is to provide effective, quality service at a reasonable cost with courtesy, integrity and accountability in a manner that protects and enhances the quality of life of our diverse population.



Going beyond the text: Journaling to self discovery

Knowing who you are is the first step in taking charge of your life. Are you a person who cares about the environment and the future of our Earth? Do you recycle and buy sustainable products? Do you encourage others to be environmentally conscious? Keeping a journal or creating a personal blog is a great way to learn more about yourself. Who are you? Why do you do what you do? Do you have strong convictions? Are you able to stand up to others when your ideas are questioned? While you are keeping your journal or blog, read the *Tampa Bay Times* to test yourself. What are your thoughts about the things you read in the news? You can focus on environmental issues or just the news in general. To begin your journal, write about something that you have read in the *Times* that directly affects your life. You also can write about an article in this Newspaper in Education publication. Share some of your journal entries and thoughts with your peers.

About NIE

The Tampa Bay Times Newspaper in Education program (NIE) is a cooperative effort between schools and the Times Publishing Co. to encourage the use of newspapers in print and electronic form as educational resources – a “living textbook.” Our educational resources fall into the category of informational text, a type of nonfiction text. The primary purpose of informational text is to convey information about the natural or social world.

Since the mid-1970s, NIE has provided schools with class sets of the daily newspaper plus award-winning original curriculum supplements, teacher guides, lesson plans, educator workshops and many more resources at no cost to schools, teachers or families. Each year, more than 5 million newspapers and electronic licenses are provided to Tampa Bay teachers and students free of charge thanks to our generous individual, corporate and foundation sponsors. NIE teaching materials cover a variety of subjects and are correlated to the Florida Standards.

For more information about NIE, visit tampabay.com/nie, call 800-333-7505, ext. 8138 or email ordernie@tampabay.com. Follow us on Twitter at [Twitter.com/TBTimesNIE](https://twitter.com/TBTimesNIE).



original curriculum supplements, teacher guides, lesson plans, educator workshops and many more resources at no cost to schools, teachers or families. Each year, more than 5 million newspapers and electronic licenses are provided to Tampa Bay teachers and students free of charge thanks to our generous individual, corporate and foundation sponsors. NIE teaching materials cover a variety of subjects and are correlated to the Florida Standards.

For more information about NIE, visit tampabay.com/nie, call 800-333-7505, ext. 8138 or email ordernie@tampabay.com. Follow us on Twitter at [Twitter.com/TBTimesNIE](https://twitter.com/TBTimesNIE).

NIE staff

Jodi Pushkin, manager, jpushkin@tampabay.com
Sue Bedry, development specialist, sbedry@tampabay.com
Noelle Sansom, coordinator, nsansom@tampabay.com

© Tampa Bay Times 2016

Credits

Written by Sue Bedry, *Times* staff
Curriculum activities by Jodi Pushkin, *Times* staff
Designed by Stacy Rector, Fluid Graphic Design LLC

Florida Standards

This publication and its activities incorporate the following Florida Standards for middle and high school students.

Science: SC.68.CS-CC.1.1; SC.68.CS-CC.1.2; SC.68.CS-CC.1.3; SC.7.P.11.2; SC.7.P.11.3; SC.8.N.4.2; SC.912.CS-CC.1.5; SC.912.CS-PC.2.3; SC.912.CS-PC.2.4; SC.912.CS-PC.3.2; SC.912.CS-PC.3.3; SC.912.CS-PC.3.4; SC.912.L.17.11; SC.912.L.17.12; SC.912.L.17.13; SC.912.L.17.14; SC.912.L.17.15; SC.912.L.17.16; SC.912.L.17.17; SC.912.L.17.18; SC.912.L.17.19; SC.912.L.17.20

Language Arts: LAFS.68.L.1.1; LAFS.68.L.1.2; LAFS.68.L.2.3; LAFS.68.L.3.4; LAFS.68.L.3.5; LAFS.68.L.3.6; LAFS.68.RI.1.1; LAFS.68.RI.1.2; LAFS.68.RI.1.3; LAFS.68.RI.2.4; LAFS.68.RI.2.5; LAFS.68.RI.2.6; LAFS.68.RI.3.7; LAFS.68.RI.3.8; LAFS.68.RI.3.9; LAFS.68.SL.1.1; LAFS.68.SL.1.2; LAFS.68.SL.1.3; LAFS.68.SL.2.4; LAFS.68.SL.2.5; LAFS.68.SL.2.6; LAFS.68.W.1.1; LAFS.68.W.1.2; LAFS.68.W.1.3; LAFS.68.W.2.4; LAFS.68.W.2.5; LAFS.68.W.2.6; LAFS.68.W.3.7; LAFS.68.W.3.8; LAFS.68.W.3.9; LAFS.68.W.4.10; LAFS.68.WHST.1.1; LAFS.68.WHST.1.2; LAFS.68.WHST.2.4; LAFS.68.WHST.2.5; LAFS.68.WHST.2.6; LAFS.68.WHST.3.7; LAFS.68.WHST.3.8; LAFS.68.WHST.3.9; LAFS.68.WHST.4.10; LAFS.910.L.1.1; LAFS.910.L.1.2; LAFS.910.L.2.3; LAFS.910.L.3.4; LAFS.910.L.3.5; LAFS.910.L.3.6; LAFS.910.RI.1.1; LAFS.910.RI.1.2; LAFS.910.RI.1.3; LAFS.910.RI.2.4; LAFS.910.RI.2.5; LAFS.910.RI.2.6; LAFS.910.RI.3.7; LAFS.910.RI.3.8; LAFS.910.RI.3.9; LAFS.910.SL.1.1; LAFS.910.SL.1.2; LAFS.910.SL.1.3; LAFS.910.SL.2.4; LAFS.910.SL.2.5; LAFS.910.SL.2.6; LAFS.910.W.1.1; LAFS.910.W.1.2; LAFS.910.W.1.3; LAFS.910.W.2.4; LAFS.910.W.2.5; LAFS.910.W.2.6; LAFS.910.W.3.7; LAFS.910.W.3.8; LAFS.910.W.3.9; LAFS.910.W.4.10; LAFS.910.WHST.1.1; LAFS.910.WHST.1.2; LAFS.910.WHST.2.4; LAFS.910.WHST.2.5; LAFS.910.WHST.2.6; LAFS.910.WHST.3.7; LAFS.910.WHST.3.8; LAFS.910.WHST.3.9; LAFS.910.WHST.4.10; LAFS.1112.L.1.1; LAFS.1112.L.1.2; LAFS.1112.L.2.3; LAFS.1112.L.3.4; LAFS.1112.L.3.5; LAFS.1112.L.3.6; LAFS.1112.RI.1.1; LAFS.1112.RI.1.2; LAFS.1112.RI.1.3; LAFS.1112.RI.2.4; LAFS.1112.RI.2.5; LAFS.1112.RI.2.6; LAFS.1112.RI.3.7; LAFS.1112.RI.3.8; LAFS.1112.RI.3.9; LAFS.1112.SL.1.1; LAFS.1112.SL.1.2; LAFS.1112.SL.1.3; LAFS.1112.SL.2.4; LAFS.1112.SL.2.5; LAFS.1112.SL.2.6; LAFS.1112.W.1.1; LAFS.1112.W.1.2; LAFS.1112.W.1.3; LAFS.1112.W.2.4; LAFS.1112.W.2.5; LAFS.1112.W.2.6; LAFS.1112.W.3.7; LAFS.1112.W.3.8; LAFS.1112.W.3.9; LAFS.1112.W.4.10; LAFS.1112.WHST.1.1; LAFS.1112.WHST.1.2; LAFS.1112.WHST.2.4; LAFS.1112.WHST.2.5; LAFS.1112.WHST.2.6; LAFS.1112.WHST.3.7; LAFS.1112.WHST.3.8; LAFS.1112.WHST.3.9; LAFS.1112.WHST.4.10