

Recycling



When you total up all the paper, plastic, aluminum and glass, Hennepin County recycles 580,000 tons each year. All of that recycling makes a big difference. By choosing to recycle, we reduce our consumption of fossil fuels, create jobs, conserve natural resources and protect the environment. Plus, recycling is simple, convenient and something the entire family can help with. However, we can still do more to recycle everything we can everywhere we go by brushing up on what items go in the recycling bin and learning about the recycling process.

Why recycle?

Recycling saves energy

Manufacturing products from recycled materials uses far less energy than manufacturing the same product from virgin (new) materials. It takes 90 percent less energy to manufacture an aluminum can from recycled aluminum, about 50 percent less energy to manufacture a glass bottle from recycled glass, and about 75 percent less energy to manufacture paper from recycled paper. Recycling decreases our demand for fossil fuels.

Recycling benefits the economy

Recycling helps support local markets and businesses statewide. Approximately 37,000 jobs in Minnesota are directly or indirectly supported by the recycling industry. These jobs pay an estimated \$2 billion in wages and add \$8.5 billion to Minnesota's economy.

Additionally, recyclable material has tremendous economic value. In 2010, Minnesota recycling programs collected approximately 2.5 million tons of material worth \$690 million. We lose money when we don't recycle. About one million tons of recyclable material is thrown away each year. That material, if recycled, would be worth about \$217 million to the state's economy; instead, it costs more than \$200 million to send the material to landfills.

Recycling protects the environment

By reducing energy use, recycling decreases greenhouse gas emissions. The amount of material recycled in Minnesota annually reduces greenhouse gas emissions equal to taking 1.3 million cars off the road. By conserving natural resources, recycling has indirect benefits to climate change as well. Take paper recycling, for instance. Each mature tree we don't cut down can filter up to 60 pounds of pollutants and carbon dioxide out of our air each year.

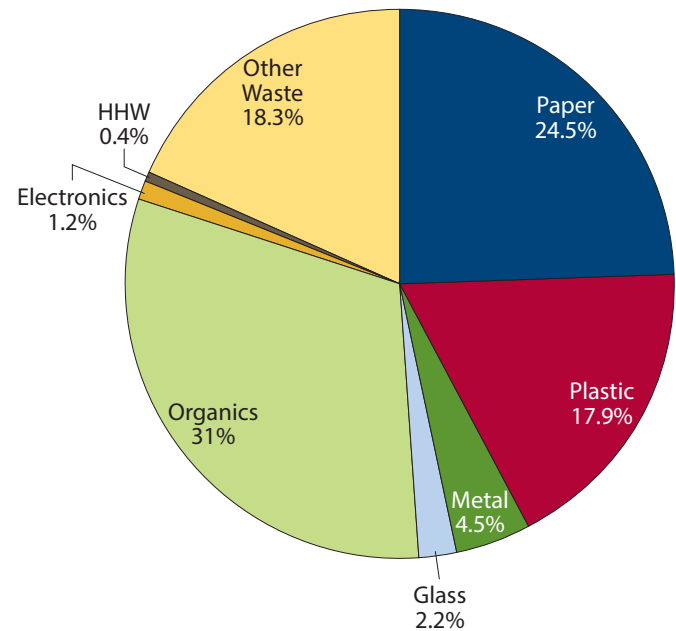
Recycling and buying recycled products also helps keep Minnesota's air and water clean as manufacturing products from recycled materials generates significantly less air and water pollution than manufacturing from virgin materials. Manufacturing recycled white office paper creates 74 percent less air pollutants and 35 percent less water pollutants than making it from virgin wood pulp.

We can recycle more

About 1.35 million tons of solid waste was generated in Hennepin County in 2015, which is nearly 34,000 tons less than 2014. Recycling increased to 43 percent in 2015. This is an increase of 2 percent compared to 2014, with 9,000 more tons of material recycled. The 2015 results continue the trend of small but consistent annual increases since 2010 when the recycling rate was 38 percent. However, this is 2 percent short of the 2015 goal of recycling 45 percent of waste generated. A lot of recyclable material, especially paper and plastic, still ends up in the trash. Everyone can help increase recycling by knowing what can be recycled and recycling everywhere they go, including at home, at work, at school, at events, while traveling and on-the-go.

What's in the trash?

Residential waste composition



What can I recycle?

From glass and metal to plastics, cartons and paper, you can recycle a wide variety of materials. The following is a list of materials that are accepted in all communities in Hennepin County. Some cities or haulers may accept more materials than what is on this list. Contact for your city recycling coordinator or hauler for information for your specific program. Find city recycling contacts at www.hennepin.us/recycling.

Paper

- Mail, office and school papers
- Magazines and catalogs
- Newspapers and inserts
- Phone books



Boxes:

- Cardboard
- Cereal and cracker boxes
- Shoe boxes, gift boxes and electronics boxes
- Toothpaste, medication and other toiletry boxes



Cartons

- Milk cartons
- Juice boxes
- Soup, broth and wine cartons

Glass

- Food and beverage bottles and jars



Plastic

Bottles and jugs:

- Water, soda and juice bottles
- Milk and juice jugs
- Ketchup and salad dressing bottles
- Dishwashing liquid bottles and detergent jugs
- Shampoo, soap and lotion bottles



Cups and containers:

- Yogurt, pudding and fruit cups
- Disposable cups and bowls
- Margarine, cottage cheese, and other containers
- Produce, deli and takeout containers

Packaging:

- Clear packaging from toys and electronics

Metal

- Food and beverage cans



Tips for recycling at home

Collect recycling throughout your home

People are generally pretty good at collecting the recycling they generate in the kitchen but often overlook recycling generated in other areas of the home.

Remember to recycle items from:

- The bathroom, including shampoo, soap and lotion bottles and boxes from toothpaste, medications and other toiletries.
- The laundry room, including laundry detergent jugs and boxes from dryer sheets.
- The office, including office paper, mail, newspapers and magazines.

Recycle more materials

People may also be unaware that more materials are now accepted for recycling. Materials that have been added to recycling programs recently include:

- Cartons, including milk, juice, soup or broth cartons as well as juice boxes.
- Plastic cups and containers such as yogurt cups or sour cream tubs.
- Plastic produce and deli containers or take-out containers.
- Plastic packaging from electronics and toys.

Don't recycle: Styrofoam™, plastic wrap, microwaveable food trays, paper soiled with food, paper plates and towels, drinking glasses, dishes, mirrors and containers that held hazardous products.

Recycling FAQs

The following are answers to frequently asked recycling questions.

My recycling is picked up every other week, and my recycling cart is overflowing. Why don't they pick my recycling up every week?

If you want to request that your recycling is collected more often, contact your city recycling coordinator and/or recycling hauler. But be aware that moving to weekly recycling pickup isn't necessarily the best solution. Picking up recycling weekly means more trucks on the roads and more emissions. It would also make recycling more costly.

You can typically get a second cart or a larger bin – contact your city recycling coordinator or hauler to request one. Also think about what you have in your recycling. Could you make more space in your bin by condensing your recycling? Try collapsing cardboard boxes, crushing cans, bottles, or cartons etc. Finally, you may want to consider why you're generating so much recycling. Is there waste that could be reduced or eliminated?

What should I do with caps and lids?

Leave plastic lids on to prevent them from falling through the gaps at the recycling sorting facility. This applies to plastic bottles, jugs, cups, containers, and cartons.

Remove caps and lids from glass bottles and jars. You can collect metal caps in a metal can (such as a soup can). Squeeze the can shut before recycling to prevent the caps from falling through the gaps at the recycling facility.

Can I recycle pizza boxes?

No. Pizza boxes are not accepted for recycling because they are almost always contaminated with grease and oil. Food is one of the worst contaminants in the paper recycling process because it can ruin entire batches of recycled paper, costing the industry \$700 million per year. If you do recycle your pizza boxes, make absolutely sure the entire box is grease-free. Cut or tear out the soiled portions of your pizza boxes and put them in the trash.

Can I recycle plastic bags?

Check with your hauler. Republic Waste Services accepts retail plastic bags as long as you put all plastic bags together in one plastic bag before placing in the recycling cart. Waste Management, Randy's and most other haulers do not accept plastic bags. Check with your hauler or city for guidelines for guidelines specific to your recycling service.

Plastic bags cause problems at the recycling sorting facilities because they become wrapped around moving

parts and interfere with equipment. The good news is that many retail and grocery stores accept plastic bags. The county drop-off facilities accept plastic bags as well.

Can I recycle refrigerated and frozen food boxes?

Milk cartons and juice boxes can be recycled. Soup, broth, and wine cartons can, too. Thanks to new technology at paper mills the valuable, high-quality paper in cartons can be separated from the unwanted layers of plastic and aluminum. Check with your hauler for details on other items, such as pop and beer cartons and refrigerated food boxes.

Frozen food boxes and ice cream cartons are typically not accepted because plastic is incorporated into the matrix of the paper during manufacturing. This added plastic helps protect food from freezer burn and ensures that the paper container won't get soggy.

What do the numbers on plastics tell me about recycling?

The numbers on plastics are called Resin Identification Codes and let you know what type of plastic the items is made of. The symbol does not mean the item is recyclable. For example, both shampoo bottles and plastic bags may be #2 plastics, but their recyclability varies.

To crack the recycling code, it's best to use descriptions of the materials (bottles, cups, containers, etc.), images and the numbers to determine what is recyclable.

How clean do my recyclables need to be?

Cleaner is better. Rinse cans, bottles and jars to remove food residue. Here are some additional pointers for preparing recyclables:

- Leave plastic caps and lids on
- Remove lids from glass jars
- Flatten boxes
- Remove pumps from spray bottles
- Do not place recyclables in plastic bags

What should I do with confidential paper?

Confidential paper can be recycled. Your confidential papers are no safer in the garbage than in the recycling, but proper preparation is important. It's a good idea to shred paper with financial information or other sensitive personal information to prevent identity theft. Place the shredded paper in a brown paper bag, staple it shut, and put it in your curbside recycling cart.

Can I recycle egg cartons?

It depends on what type of egg carton it is. Paper egg

cartons cannot be recycled because the paper fiber in egg cartons has been recycled too often and is too short to be recycled again. However, they are great to use in compost. If the egg carton is Styrofoam™ or #6 polystyrene, it goes in the trash. If the egg carton is a clear #1 plastic, it can be recycled.

I'm confused about plastics. What should I do with Styrofoam™, flower and garden pots, and larger items such as my laundry basket?

Styrofoam™ should be placed in the garbage. Examples include Styrofoam™ cups, plates, bowls, take-out containers, egg cartons, mushroom containers, and all other expanded polystyrene foam products. These items may be labeled as #6 plastic. As a general rule, #6 plastics are not accepted for recycling. There are very few viable, cost-effective markets currently available for this material. Transportation costs are prohibitive and it contaminates other materials, not to mention the litter impact. It's best to avoid Styrofoam™.

Ask your city or hauler about flower and garden pots. Some haulers accept them, and some do not. If they are accepted, make sure to clean out any remaining dirt. Also check with your city or hauler about options for other rigid plastics such as laundry baskets.

The recycling process

Many people wonder what happens to their recycling after it leaves the curb, especially because most recycling is now collected in a single-sort system in which all recycling is placed into one bin or cart.

The materials that people recycle are put to good use by being manufactured into new products.

The recycling process includes four main steps:

1. Separation and collection
2. Processing
3. Marketing and manufacturing
4. Purchasing recycled materials

Recycling starts at the curb with source separation and collection, which means recyclables need to be separate from trash when they are picked up from homes and businesses.

The next step is processing, which is when waste haulers bring the collected recyclables to materials recovery facilities (MRFs) to be sorted, graded, cleaned and prepared for markets. Materials are sorted to remove contaminants

that may damage processing equipment and graded to reclaim higher-value materials. Various methods are used at MRFs to sort materials. Mechanical processes such as magnets, air jets and screens sort materials by taking advantage of the physical differences among materials, such as weight or magnetism. Hand-sorting is used to sort materials that the mechanical methods cannot.

After the recyclables are processed at the MRF, the materials are sold to manufacturers that make them into a wide variety of new products.

- Paper is turned into pulp by being mixed with water and heated at a paper mill. It is then recycled back into paper, newspaper, boxes, napkins, paper towels, egg cartons and more.
- Cartons are sent to a paper mill where the pulping process separates the valuable paper from the plastic or foil lining.
- Glass is crushed, heated and recycled into glass bottles and jars or used in insulation, floor tile, road construction projects and more.
- Steel or aluminum is heated, melted and recycled back into steel or aluminum cans.
- Plastics are shredded, melted and recycled into a variety of products, including plastic bottles, carpet, furniture, clothing and more.

The final step in the recycling process is closing the recycling loop by buying products made from recycled materials.



Close the recycling loop: buy recycled

Consumers are an important part in making recycling work because purchases send a message to manufactures that recycled products are valued. When you're out shopping, help close the recycling loop by purchasing items made from recycled materials. Look on product labels for words like: *this item is made from recycled materials*, *made from post consumer content*, or *made from reclaimed materials*.

Resources

www.hennepin.us/recycling

Information about what you can recycle, links to additional recycling and waste reduction services, and resources for apartment and condominium recycling.

www.RethinkRecycling.com

Your go-to guide for waste and recycling in the Twin Cities. Includes a residential recycling guide with information on what you can recycle, recycling drop-off locations, and information about reducing and reusing.

MAKE A RECYCLING MONSTER

Decorating recycling containers makes recycling fun and easy for your family. Creating recycling monsters gets everyone involved in recycling paper, plastic, cans and other items. Using two paper grocery bags, youth can create a recycling monster that is hungry for the items we recycle.

Outcome

Increase recycling at home by making it a fun activity for the entire family.

Audience

Youth (ages 5+), parents and children

Time

20 - 40 minutes

Concepts

- Many things can be recycled. Make sure you're familiar with what can be recycled.
- Remember to recycle materials generated throughout your home. Not just in the kitchen, but from the bathroom, laundry room, office and more.
- The whole family can be involved in recycling. Recycling can be fun!

Supplies

- Two same-size brown grocery bags per participant
- Scissors
- Glue
- Fabric scraps, crayons or other art materials for decorating the recycling monster



MAKE A RECYCLING MONSTER

Preparation

Gather enough supplies by asking participants to bring their own or soliciting supplies a few weeks before doing the activity.

Pre-cut the opening in paper bags for participants under the age of 8. Pre-cutting will also shorten activity length if you are short on time.

Procedure

- Each participant should have two same-sized brown grocery bags. Have participants cut a large oval in the bottom of one bag and slide it upside-down over the other bag, so the oval is on top. The oval will be the monster's mouth, which is where participants will place recyclable items.
- Have participants decorate the bag with fabric scraps, crayons or other art materials to make the monster's eyes, nose, hair, teeth, etc.
- Participants can use the recycling monster as their home recycling receptacle. Have the recycling monster 'eat' recyclables including: glass, plastic, paper, cartons and metal. Distribute the Recycling Guide to make sure everyone knows what the monster can eat (what can be recycled).
- When the monster is full, participants can pull off the top decorated bag and put the bottom bag containing recyclables in their recycling cart or out for curbside collection, and replace the bottom bag. The bag could also be emptied into a recycling cart and reused.
- Participants can add a string handle, which will make removing the top bag easier.
- Participants can make multiple monsters to collect recycling throughout their home (in the kitchen, the bathroom, the laundry room, the office, etc.).

Discussion questions

- How do you currently collect recycling at home? If you didn't recycle before, why not?
- What is difficult or confusing about recycling at home? Are there any materials on the recycling guide that you weren't aware you could recycle? Are there any materials you will begin recycling or will recycle more?
- How will you use the recycling monster at home to encourage your family to recycle?

Additional activity ideas

Make recycling monsters for your organization

Create recycling monsters (or animals or other creatures) to use in your organization's common areas, classrooms, etc.

Share photos of recycling monsters

Challenge participants to post or share photos of their recycling monsters in use in their home on social media.

Resources

Handout: Recycling Guide (*see Appendix*).

DO YOU KNOW WHAT TO THROW?

Many people think they know everything that can be recycled, but are surprised to learn that some items have been added to recycling programs while other items are a problem in the recycling process. Sorting through recyclable and not recyclable materials is a simple, fun and eye-opening way to engage people in learning more about recycling.

Outcome

Participants will learn what materials can and can't be recycled.

Audience

Youth (ages 5+), parents and children

Time

20 - 30 minutes

Concepts

- Many things can be recycled. Some materials have been added to recycling programs while others are problematic in the recycling process. The basic list of what items are accepted for recycling is consistent throughout Hennepin County and most of the metro area, but some haulers accept more materials for recycling beyond the basic list.
- Some materials cannot be recycled because either there is no good way to recycle them or they cause problems in the recycling process. Try to reduce or avoid these items.
- Recycling conserves energy and natural resources and reduces greenhouse gas emissions.

Supplies

- Multiple examples of the following items:
 - Recyclables: office paper, newspaper, magazines, phone books, cereal, cracker or pasta boxes, cardboard rolls from toilet paper/paper towels, plastic bottles, plastic cups, plastic containers, metal food cans, pop cans, glass bottles and jars, and cartons.
 - Trash: food/candy wrappers, gift wrap, frozen food boxes, broken toys, Styrofoam™ cups, to-go food boxes, microwave meal trays
 - If your city offers organics recycling collection, consider using examples of items accepted in organics recycling programs. Items include: all food (plastic food toys can be used to represent food), non-recyclable paper like napkins, paper towels and tissues, certified compostable products and other compostable household items such as coffee grounds and filters.
- Containers for sorting recyclables. Boxes, bins, bags or laundry baskets work well.
- Coloring materials (crayons, colored pencils, etc.)
- Handout: Recycling Guide
- Handout: Organics Recycling Guide (*optional*)



DO YOU KNOW WHAT TO THROW?

Preparation

- Collect and clean common items that can and cannot be recycled (see a list under supplies, and double-check the details of what is recyclable in your city).
- Put example items from the trash, recycling and organics into a container that can be used as a sorting kit. Make sorting kits of similar difficulty.
- Create as many sorting kits as you need. It's ideal to work in groups of about five. See additional activity ideas for variations for larger groups.
- Make sure that each sorting kit has the same general types of recyclable and non-recyclable items.

Procedure

- Split your audience into groups of about five participants each. Distribute the boxes or bags of items to each group.
- Have the groups work on sorting the materials into trash, recycling and organics items, focusing on what you can recycle at home. You can provide recycling guides or signs to help people determine what goes where. There are many different ways to make this activity engaging for your audience. You can set it up as a game show, timed race, team-building activity or other sort of contest. See additional activity ideas for more details on these additional options.
- As a large group, go through a sorting kit explaining what materials are recyclable or not. Encourage participants to ask questions and discuss options. The Recycling FAQs in the background information section may help you answer some questions. If you're unsure about something, follow up with Hennepin County at environment@hennepin.us to get an answer.
- Some items aren't accepted for recycling because they cause problems at recycling processing facilities, called material recovery facilities or MRFs, which sort recycling after it's picked up at the curb. Show participants how recycling is sorted at a MRF by watching the "How Recycling Works" KARE 11 news story (available at www.hennepin.us/environmentaleducation under videos). Look at the items that cannot be recycled and discuss if there are drop-off recycling options or ways to reduce or eliminate those items.
- Learn how to dispose of specific items with the Green Disposal Guide at www.hennepin.us/greendisposalguide.

Discussion questions

- What did you learn that was new? What items can we recycle that you didn't realize are recyclable?
- Were there any materials that you thought you could recycle but actually aren't accepted for recycling? Do you know of any other options for recycling these materials (there are drop off locations for some materials, such as plastic bags at many grocery stores)?
- Are there any materials you are confused about?
- Why is recycling important?
- Why do you think some people decide not to recycle? What would help them start recycling?
- What did you learn that you want to share with someone else? Who will you share it with?
- How can you incorporate what you learned to set up a recycling system in your home? What would a home recycling system look like?
- What do you want to learn more about?

DO YOU KNOW WHAT TO THROW?

Additional activity ideas

Relay race

Teams can use a relay race to fuel friendly competition. Have teams race to see who can sort the items correctly the fastest. Assign a time penalty for each incorrect item.

Circle up

Have participants stand in a circle and give one item to each person. Go around the circle and have each participant say whether they think their item is trash, recycling or organics. Discuss with the group the correct answer and ways to recycle or avoid items not accepted for recycling at home.

Team-building

Have youth work together to create a project from the non-recyclable items. Examples include creating the tallest structure, a model that represents something else or forming a band that plays instruments made from non-recyclable materials.

Recycling chart

Create a recycling chart to help youth remember which items can and can't be recycled. First, make a copy of the *What can my family recycle?* worksheet (see Appendix) for each youth. Cut out photos from magazines or draw pictures of the items that can be recycled and put them in the *What can my family recycle?* worksheet. Encourage youth to post their recycling chart in the kitchen or near the garbage/recycling area at home. Challenge youth and their families to start recycling at least one new item from the recycling chart.

Waste audit

- Examining what materials are being put in the trash or recycling is an eye-opening way to understand your recycling system and identify opportunities to improve.
- Put on protective gear such as rubber gloves and take a look in your trash and recycling bin. Note what kinds of recyclables are in there and calculate the percentage of trash that could be recycled. Use this information to improve recycling within your household or your group's facility. For example, place signs on recycling bins of all the items that can be recycled and place reminders on the trash bin to only throw away things that are truly garbage. If you're doing a waste audit at home, ask participants to take a look at what is going in the trash versus what is getting recycled in different areas of their homes, including the kitchen, office, bathroom and laundry room.
- As a group, discuss what opportunities there are to recycle more. Order labels for participants to put on their trash and recycling bins at home at www.hennepin.us/recycleeverywhere.

Improve your recycling set-up

- Inventory recycling at your home. Where do you have bins at home? We do well at recycling in the kitchen, but can improve recycling in other rooms such as the bathroom, laundry room and home office. Add recycling bins to all areas of your home and make sure to have a recycling bin wherever you have a trash bin. Label the containers so members of your household know what to put in each container. Order labels at www.hennepin.us/recycleeverywhere.

Resources

- **Handout:** Recycling Guide (available in English or bilingual in English and Cambodian Khmer, Hmong, Lao, Spanish, Somali, Thai and Vietnamese)
- Recycling and trash labels for household waste containers (order at www.hennepin.us/recycleeverywhere)

PLAYHOUSE RECYCLING

Recycling is a family-friendly activity that can help get young children excited about protecting the environment. Teaching children how to recycle at a young age is important to establishing life-long recycling habits, especially when they are having fun doing it! If you have a playhouse area in your home or classroom, establishing a recycling sorting center within the playhouse can reinforce recycling as a norm.

Outcome

Create a recycling sorting center in your child's playhouse to create lifelong recycling habits.

Audience

Youth (age 2+) with the assistance of an adult

Time

Variable

Concepts

- Recycling is an easy thing that everyone can do to protect the environment.
- When we recycle, the stuff we no longer need gets made into new items.

Supplies

- Two colored plastic tubs or boxes labeled for recycling, organics and trash.
- Labels or art supplies to create labels. Clean and empty items that can be recycled (plastic bottles, paper and aluminum cans) and items that go in the trash (Styrofoam, wrappers, plastic wrap, etc.)
- Art supplies for decorating and labeling waste bins.



PLAYHOUSE RECYCLING

Preparation

- Set up your containers, making sure that the trash, recycling and organics bins are placed together wherever you set them up.
- Label the containers. The recycling sign should depict what can be recycled, such as plastic bottles, cups and containers, metal cans, cartons, paper and glass.

Procedure

- Place labeled plastic tubs or boxes in the playhouse area in your classroom, at home or at your organization.
- Talk with children about recycling. Use the recyclable and non-recyclable items to explain the basics of how recycling works and what materials can be recycled. Encourage children to recycle when they use the playhouse area.
- Have children create recycling bins they can use at home. Have them create labels depicting what can be recycled and place them on boxes or containers they already have at home. To make the signs, children can either draw recyclable items or use pictures of recyclable items.

Discussion questions

- How did children react to the recycling sorting system in their playhouse? What did you expect? What surprised you?
- What did you learn about recycling? Were you surprised by any materials that you didn't know were recyclable?
- How can teaching children to recycle at a young age establish lifelong recycling habits?

Resources

- **Handout:** Recycling Guide (available in English or bilingual in English and Cambodian Khmer, Hmong, Lao, Spanish, Somali, Thai and Vietnamese)
- What can my family recycle worksheet (*see Appendix*).

CLOSE THE LOOP ON RECYCLING

In order for recycling to work, there must be a market for recycled materials. We can support that market by purchasing products containing recycled content. Look on a product's label for words like: *this item is made from recycled materials, made from post consumer content or made from reclaimed materials.*

Making products from recycled materials saves energy and natural resources. It takes 95 percent less energy to make aluminum from recycled material than it does to make it from raw materials. Using recycled plastic results in a 70 percent energy savings, and using recycled glass results in a 40 percent energy savings. Five plastic soda bottles yield enough fiber for one extra-large T-shirt, one square foot of carpet or enough fiber fill for one ski jacket.

Outcome

Participants will understand how recycling works by learning about materials made from recycled products.

Audience

Youth (ages 12+)

Time

20 - 30 minutes

Concepts

- After your recycling is picked up, it is sorted at a recycling facility and then sold to manufacturers who make a variety of new products.
- Recycling saves energy and natural resources.
- Purchasing products made from recycled materials helps close the recycling loop and support the recycling industry.

Supplies

- Computers with internet access for research
- How recycling works videos, access at www.hennepin.us/environmentaleducation in the Videos section
- Materials for participants to present their findings such as poster board and markers (*optional*)
- Examples of materials made from recycled materials. Gather your own or reserve Hennepin County's Recycled Products Learning Trunk at www.hennepin.us/environment (*optional*)



CLOSE THE LOOP ON RECYCLING

Preparation

Set out examples of items made from recycled materials for the participants to see.

Procedure

- Ask participants to describe the recycling loop. Questions might include: what happens to recycling once it leaves the curb? What products are made from recycled materials?
 - Have participants watch a video on how recycling works from www.hennepin.us/environmentaleducation in the Videos section to learn about how recycling is sorted, graded, cleaned and prepared before being sold to manufacturers to make new products.
 - Divide participants into research teams for each type of recyclable material: paper, plastic, cartons, metal and glass. Have each team research what happens to their material during the recycling process – from picking it up at the curb to making it into something new.
- Have your teams answer the following questions:
- How much of this material is generated (in Minnesota, in the U.S., etc.)?
 - What products made of this material can be recycled? What products cannot be recycled?
 - What raw materials and natural resources go into making this product if it's not made from recycled materials?
 - How is this material sorted from other materials and prepared for markets at a recycling facility?
- What new products are made from this recycled material?
 - What are the benefits of recycling this material? How much energy and water is saved? What natural resources are conserved? What types of jobs are created?
 - What is the difference between recycled-content products, post-consumer content products, and recyclable products? Where can you buy recycled products?
 - Suggestions for research:
Good sources of information about recycling include Hennepin County, the Minnesota Pollution Control Agency, Recycle More Minnesota, Rethink Recycling, the Recycling Association of Minnesota and the Environmental Protection Agency.
 - Have participants present what they learned to other teams. Use visual aids to show the life cycle of recycled and non-recycled products. Have examples of products made from recycled materials available for groups to use during their presentation.

Discussion questions

- What items do you use that you didn't realize are made from recycled materials? What items would you like to start using? Why?
- What did you learn about the different steps within the recycling loop? What are you still confused about? What more do you want to learn about?
- Why does it matter if anyone uses materials with recycled content?
- What were some good sources of information for your project?
- Can you imagine other uses for recycled materials that you don't think are already being done?
- How can we encourage more people to use recycled products?
- What did you learn that you want to share with someone else? Who will you share it with?

(over)

CLOSE THE LOOP ON RECYCLING

Additional activity ideas

Tour the Brooklyn Park Transfer Station

On this tour, participants learn how waste including household hazardous waste, recycling, organics and problem materials such as computers, televisions and appliances are properly managed, recycled or disposed of. This tour highlights the importance of reducing, reusing, recycling and preventing pollution. Appropriate for ages 7 and older. Visit www.hennepin.us, search tours.

Recycling process activity sheet

See the recycling process activity sheet in the Appendix. Copy or download and print enough copies for your group to work in teams of two to five people. Cut out images of raw materials and products made from recycled materials. Have participants tape or glue onto the activity sheets what raw materials each product is made from and what it can be recycled into. Review the recycling process explanation in the recycling background information and discuss with your group how each material is recycled into new products.

Resources

Recycled Products Learning Trunk

This trunk demonstrates the importance of completing the recycling loop by purchasing products made from recycled materials. It includes example products.

Learning trunks can be checked out for free from Hennepin County at www.hennepin.us/environmentaleducation.

Recycling FAQs

The following are answers to frequently asked recycling questions.

My recycling is picked up every other week, and my recycling cart is overflowing. Why don't they pick my recycling up every week?

If you want to request that your recycling is collected more often, contact your city recycling coordinator and/or recycling hauler. But be aware that moving to weekly recycling pickup isn't necessarily the best solution. Picking up recycling weekly means more trucks on the roads and more emissions. It would also make recycling more costly.

You can typically get a second cart or a larger bin – contact your city recycling coordinator or hauler to request one. Also think about what you have in your recycling. Could you make more space in your bin by condensing your recycling? Try collapsing cardboard boxes, crushing cans, bottles, or cartons etc. Finally, you may want to consider why you're generating so much recycling. Is there waste that could be reduced or eliminated?

What should I do with caps and lids?

Leave plastic lids on to prevent them from falling through the gaps at the recycling sorting facility. This applies to plastic bottles, jugs, cups, containers, and cartons.

Remove caps and lids from glass bottles and jars. You can collect metal caps in a metal can (such as a soup can). Squeeze the can shut before recycling to prevent the caps from falling through the gaps at the recycling facility.

Can I recycle pizza boxes?

No. Pizza boxes are not accepted for recycling because they are almost always contaminated with grease and oil. Food is one of the worst contaminants in the paper recycling process because it can ruin entire batches of recycled paper, costing the industry \$700 million per year. If you do recycle your pizza boxes, make absolutely sure the entire box is grease-free. Cut or tear out the soiled portions of your pizza boxes put them in the trash.

Can I recycle plastic bags?

Check with your hauler. Republic Waste Services accepts retail plastic bags as long as you put all plastic bags together in one plastic bag before placing in the recycling cart. Waste Management, Randy's and most other haulers do not accept plastic bags. Check with your hauler or city for guidelines for guidelines specific to your recycling service.

Plastic bags cause problems at the recycling sorting facilities because they become wrapped around moving parts and interfere with equipment. The good news is that many retail and grocery stores accept plastic bags. The county drop-off facilities accept plastic bags as well.

Can I recycle refrigerated and frozen food boxes?

Milk cartons and juice boxes can be recycled. Soup, broth, and wine cartons can, too. Thanks to new technology at paper mills the valuable, high-quality paper in cartons can be separated from the unwanted layers of plastic and aluminum. Check with your hauler for details on other items, such as pop and beer cartons and refrigerated food boxes.

Frozen food boxes and ice cream cartons are typically not accepted because plastic is incorporated into the matrix of the paper during manufacturing. This added plastic helps protect food from freezer burn and ensures that the paper container won't get soggy.

What do the numbers on plastics tell me about recycling?

The numbers on plastics are called Resin Identification Codes and let you know what type of plastic the items is made of. The symbol **does not** mean the item is recyclable. For example, both shampoo bottles and plastic bags may be #2 plastics, but their recyclability varies.

To crack the recycling code, it's best to use descriptions of the materials (bottles, cups, containers, etc.), images and the numbers to determine what is recyclable.

How clean do my recyclables need to be?

Cleaner is better. Rinse cans, bottles and jars to remove food residue. Here are some additional pointers for preparing recyclables:

- Leave plastic caps and lids on
- Remove lids from glass jars
- Flatten boxes
- Remove pumps from spray bottles
- Do not place recyclables in plastic bags

What should I do with confidential paper?

Confidential paper can be recycled. Your confidential papers are no safer in the garbage than in the recycling, but proper preparation is important. It's a good idea to shred paper with financial information or other sensitive personal information to prevent identity theft. Place the shredded paper in a brown paper bag, staple it shut, and put it in your curbside recycling cart.

Can I recycle egg cartons?

It depends on what type of egg carton it is. Paper egg cartons cannot be recycled because the paper fiber in egg cartons has been recycled too often and is too short to be recycled again. However, they are great to use in compost. If the egg carton is Styrofoam™ or #6 polystyrene, it goes in the trash. If the egg carton is a clear #1 plastic, it can be recycled.

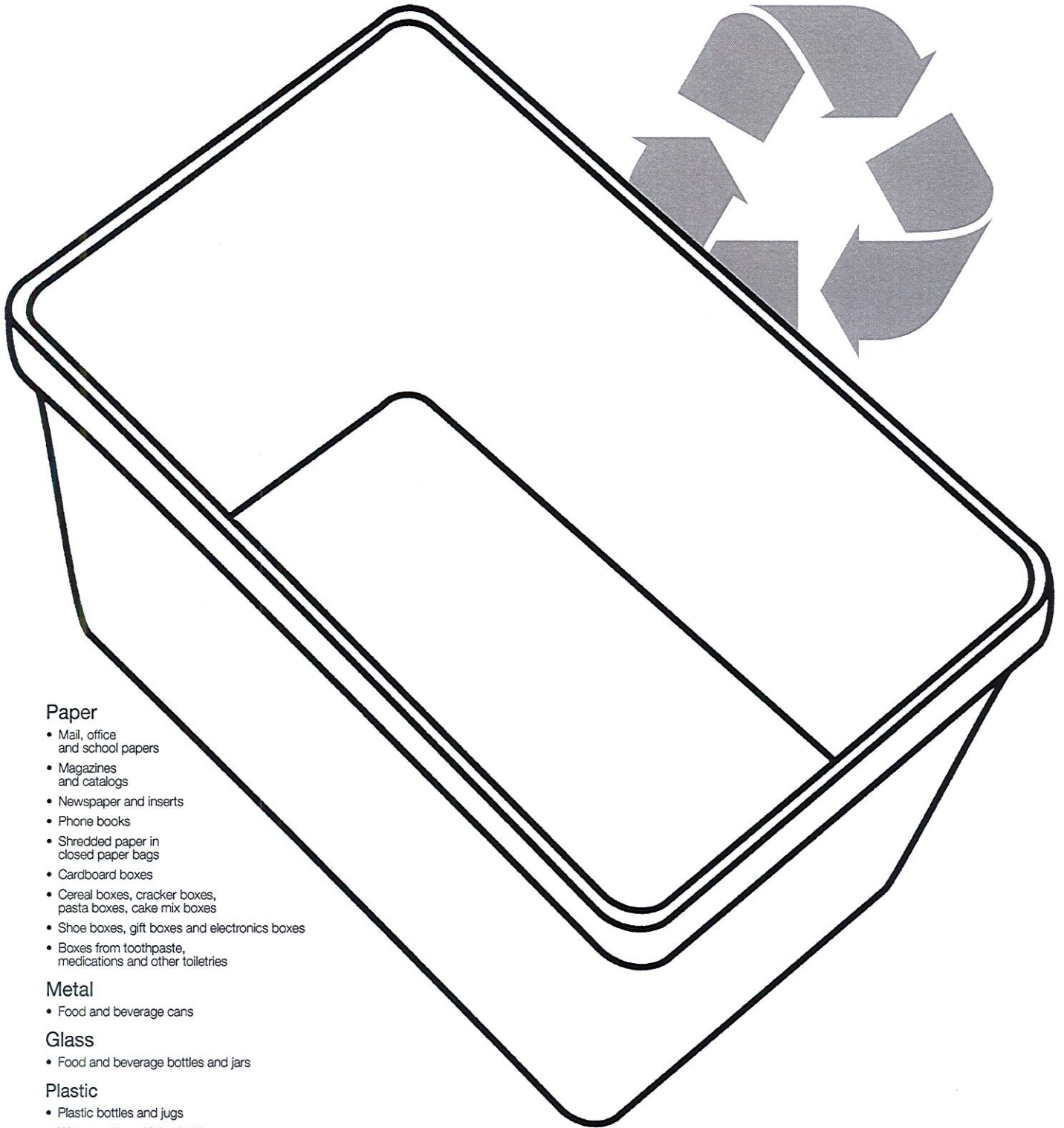
I'm confused about plastics. What should I do with Styrofoam™, flower and garden pots, and larger items such as my laundry basket?

Styrofoam™ should be placed in the garbage. Examples include Styrofoam™ cups, plates, bowls, take-out containers, egg cartons, mushroom containers, and all other expanded polystyrene foam products. These items may be labeled as #6 plastic. As a general rule, #6 plastics are not accepted for recycling. There are very few viable, cost-effective markets currently available for this material. Transportation costs are prohibitive and it contaminates other materials, not to mention the litter impact. It's best to avoid Styrofoam™.

Ask your city or hauler about flower and garden pots. Some haulers accept them, and some do not. If they are accepted, make sure to clean out any remaining dirt. Also check with your city or hauler about options for other rigid plastics such as laundry baskets.

Kid's Activity

What can my family recycle?



Paper

- Mail, office and school papers
- Magazines and catalogs
- Newspaper and inserts
- Phone books
- Shredded paper in closed paper bags
- Cardboard boxes
- Cereal boxes, cracker boxes, pasta boxes, cake mix boxes
- Shoe boxes, gift boxes and electronics boxes
- Boxes from toothpaste, medications and other toiletries

Metal

- Food and beverage cans

Glass

- Food and beverage bottles and jars

Plastic

- Plastic bottles and jugs
- Water, soda and juice bottles
- Milk and juice jugs
- Ketchup and salad dressing bottles
- Dishwashing bottles and detergent jugs
- Shampoo, soap and lotion bottles

Hennepin County
Public Works
Environment and Energy
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