Recycling activity

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)*

Photo credit: Republic Services

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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)

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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***.