



Topic: Sustainability • Estimated time: 40 minutes • For individuals and groups



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The most effective way to reduce **waste** is to not create it in the first place. Each time a new product is made, the earth's materials and energy are used. If you **reduce** the number of products you use and **reuse** materials instead of throwing them away, you can help save natural resources, protect the environment, and save money. Let's learn how to use products to their fullest extent!

Learning Outcomes

Project skill: Understands sources of waste • Life skill: Being a responsible citizen • Educational standard: NGSS 5-ESS3-1. Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. • Success indicator: Graphs sources of waste and identifies ways to reduce waste at home





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Supplies

pen, pencil, or marker



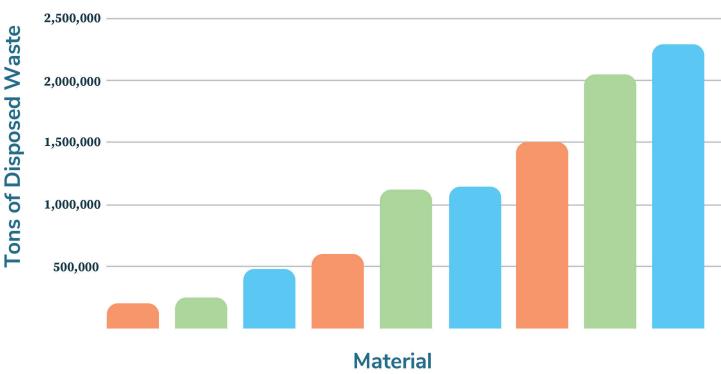
What to Do

Part A

Use this data about Ohio's disposed waste to label the bars on the graph on the last page.

Material	Tons of Disposed Waste
Electronics	239,699
Glass	191,759
Metal	472,974
Other non-recyclables	1,137,802
Paper	2,042,234
Plastic	1,502,145
Textiles, batteries, carpet	1,115,367
Wood	594,453
Yard, food, and other organic waste	2,291,521

Source: Economic Impact Potential of Recycling in Ohio, prepared by recycle. com, commissioned by Ohio Environmental Protection Agency. Final Report, February 11, 2019.



Part B

- 1. Look around your home and make a list of three waste products you see. Next to each item on your list, identify at least one reusable replacement. If you can't think of a replacement item, describe a way to reduce how often it is used.
- 2. Use the list you made as an action plan. Switch to reusable versions of each item or reduce your use of them THIS WEEK. Next week? Identify three more disposable waste items and change those. And the week after that, identify three more . . .

Talking It Over

Write your answers to these questions on a separate piece of paper and talk about them with your project helper or another caring adult.

SHARE What are the top three disposed waste materials?

REFLECT Are the waste items you found in your home shown in the graph?

GENERALIZE Can individuals working together solve big problems like too much disposable waste? Why or why not?

APPLY What is at least one step you can take to reduce disposed waste somewhere besides your home? Consider places like school, parks, places around town, etc.



More Challenges

One person's trash is another person's treasure. Organize a donation drive with your family or community club to help those in need by gathering unwanted toys, clothes, and household items to give to a local church, community center, thrift store, school, or other nonprofit organization.



A movement to shift society from high production and waste to one that reduces and reuses products began in the 1970s and '80s. The idea is to first reduce the number of products used and then to reuse products as much as possible. Being mindful of resources and making smart choices saves energy. Here are some steps you can take right away:

- Reduce food waste by thinking before you shop.
- Compost food scraps and unused food.
- Reuse or repurpose items by buying used products, borrowing items, and keeping the products you own in good repair so they last longer.
- Reduce paper and plastic use and waste.
- Think twice before printing.
- Skip disposable plastic and papers and instead use reusable bags, straws, utensils, and water bottles.

Preventing waste starts with simple changes to daily habits.



Did you know?

According to the United States Environmental Protection Agency, zero waste is defined many ways. The common idea is for individuals, households, and even cities and towns to move toward disposing as little as possible.

Vocabulary Words

reduce. To lessen or cut back on the amount of waste we create.

reuse. To use again in the same or a different way.

waste. Anything we throw away or get rid of; items that are not used.

zero waste. Generating little or no waste.

Learn More!

Want to learn more about how to eliminate waste and protect your environment? Visit Reduce, Reuse, Recycle, National Institute of Environmental Health Sciences, Reduce, Reuse, Recycle - Kids Environment Kids Health - National Institute of Environmental Health Sciences (nih.gov) kids.niehs.nih.gov/topics/reduce

Sources

Reducing & Reusing Basics, United States Environmental Protection Agency, Reducing and Reusing Basics | US EPA

Reduce and Reuse, Stopwaste.org, Reduce and Reuse | StopWaste - Home, Work, School

Economic Impact Potential of Recyling in Ohio, Final Report, Commissioned by Ohio Environmental Protection Agency, February 11, 2019, Ohio Report Final021119