

What's Trash? What Can Be Recycled?

When you hear the words, “Reduce, reuse and recycle,” the one that stands out the most is recycling. Out of all the 3R's, it is the most identifiable and most widespread practice. But there are a lot of misconceptions and misleading facts out there about recycling like what you can recycle and where. This is in part since recycling processes have improved significantly over the years, but the information about what, where and how to recycle has lagged.

This lesson is designed to introduce recycling to younger students and teach them how to separate trash from recycling. By the end of this lesson, students should be able to identify what the recycling logo looks like, where to locate it on commonly used items as well as where those items should be placed.

ILLINOIS SCIENCE STANDARDS

Next Generation Science Standards

- **K-ESS3-3** Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.
 - **Science and Engineering Practices:** Obtaining, Evaluating, and Communicating Information
 - **Crosscutting Concepts** – Cause and Effect
 - **Disciplinary Core Idea** – ESS3.C: Human Impacts on Earth Systems

Objective

Students will be able to identify recycling as an alternative to throwing things in the trash. Students will work together to sort items as either recyclable or trash. As a class, students will come up with a solution to

Materials and Resources:

- What's Trash? What Can Be Recycled? Graphic organizer
- Writing or drawing utensils
- Commonly used household trash
 - Plastic bottles, plastic packaging, cardboard, food waste, styrofoam, etc.
- Smartboard or Projector

Talk Moves

The curriculum writers suggest reviewing 9 Talk Moves to help aid in facilitating discussion between students as well as to elicit answers from individual students. The link can be found [here](#).

Safety Concerns

If bringing items into the classrooms, teachers should be sure to have washed and sanitized used items. Instructors should also be away and cautious of items such as used tin cans that may have sharp edges.

**Note: Instructors should maintain facility, school, and district policies regarding safety a priority when planning classroom lesson plans.*

Vocabulary

- Reduce: to make smaller in size, amount, or number
- Reuse: to use again especially in a different way
- Recycling: Taking specific types of products and packaging and making it into new ones.
- Trash: Things that can't be used again. It is worthless and needs to just be thrown into the garbage.
- Litter: When objects have been discarded in an unacceptable way.
- Environment: the surroundings or conditions in which a person, animal, or plant lives or operates.

Misconceptions can include, but are not limited to:

- **All plastic is recyclable.** While most plastics are recyclable, many facilities only take #1 and #2 plastics. These are the plastics that are commonly found in water bottles and milk jugs. #5 plastics commonly found in grocery stores are food containers for things such as yogurt, ketchup, syrup, medicine, etc. #5 plastics can only really be recycled in specialty locations.
- **You cannot recycle greasy pizza boxes.** Most recycling centers in the United States will accept used, greasy pizza boxes. It is recommended that cheese, vegetables, and other pizza toppings are removed before recycling.
- **Batteries can go in the landfill.** Batteries can be recycled in different specialty locations. It is important to recycle them because they are filled with dangerous chemicals.

Career Awareness

- It is important to explain to students that you don't necessarily have to be the outdoorsy type to work to help the environment. There are so many careers out there to help the Earth. It is important to introduce students to jobs that they might not have heard of.
 - Environmental Engineer
 - Environmental Lawyer
 - Environmental Scientist
 - Environmental Educator
 - City, County, and/or State Solid Waste Management and Divisions
 - Hazardous Waste Management
 - Recycling Coordinators
 - City Planners
 - EPA Regulators

Accommodation

- Vocabulary cards will be included in the resource section of this text this will help assist students that need visual or textual language. These cards will also be available in .pdf form for easy access on devices for the classroom or printing for the educator.

- The educator can make concessions for the students that have accommodations for presenting in front of others, as they will be in groups this student can give their group peer feedback.
- Recordings of the exit slip and other materials will be made available on the Clean SoIL website for ease of access for those students with accommodations for hearing or read aloud.
- Further accommodations and modifications will be made available on the Clean SoIL website or within the printed resource section for the curriculum.

Engagement (5 minutes)

- To begin the lesson, the instructor will show students the image of a dump truck in a landfill. This image can be found on the Clean SoIL website attached to this lesson.
- Once the image is pulled up on the screen, the instructor will facilitate a conversation with students. Questions to facilitate this conversation can include, but are not limited to:
 - What are your observations?
 - What do you see?
 - What happens to all our trash when it gets taken out?
 - Where does our trash go?
 - What do we know about garbage trucks?
 - What might the garbage truck be doing here?
 - Based on all our observations and wonderings, what do you think the problem is?
 - Do you think it is a problem? Why?
 - What choices can we make to reduce the impact of trash?

Explore (15 minutes)

Option A:

- The instructor will break students into small groups and give them each a graphic organizer to complete.
- The instructor will bring out a series of commonly used household items that often end up in the garbage.
- The instructor will have each group come up one by one to sort through the items using the graphic organizer available for this lesson on Clean SoIL's website.
- After having come up and sorted the items into certain categories, the instructor will prompt the students to go back and discuss their findings.

Option B:

- The instructor will have students work as a class to categorize each item as either recyclable or trash.
- The instructor will record responses on their whiteboard, Smartboard or chalkboard following the format of the graphic organizer available on the Clean SoIL website.

Option C:

- The instructor will break students into groups and give each group a bag of commonly discarded household items.

- The students will work in their groups to classify them as either trash, recyclable or unknown according to the graphic organizer available on the Clean SoIL website.

Explain (15 minutes)

- After having time to gather information, the class will gather, and each group will share their findings and what they discussed.
- Guiding questions for instructors for this portion of the lesson can include, but are not limited to:
 - What items were placed in the Trash category? Why?
 - What were items of trash made up of?
 - What items were placed in the Recycle category? Why?
 - What were recyclable items made up of?
 - Were there any items you were unsure of? Which ones?
 - What do we know about the different kinds of things we throw away that make up trash?
 - How was all that trash created?
 - What do we know about the different kinds of things that are recyclable?
- The instructor will then break students into pairs and ask students to answer the questions:
 - What did the items of trash have in common?
 - What did the recyclable items have in common?
 - What were the differences between these items?
 - What do you think makes an item recyclable?
- The class will come back together and share their answers.
- To facilitate further responses from students, the instructor is encouraged to ask questions such as:
 - Can you say more about that?
 - Can you give us more examples?
 - Who can add onto what _____ said?

Elaborate (10 minutes)

- The instructor will prompt discussion within the class using questions that can include, but are not limited to:
 - What are the impacts of so much trash on our environment?
 - What are our ideas about how we can reduce its impact?
 - How can we best communicate our ideas for a solution?
 - What new wonderings do we have?
- The instructor will then facilitate a class discussion on how they can implement a solution to reducing the amount of trash that they produce in their classroom.

Evaluate (5 minutes)

- Based on the teacher's discretion, students will either work in groups or individually to communicate the solution(s) that the class produced. This can be done through a song, a play or even a drawing.

Optional Extension:

The instructor can have students clean their desk, sorting what is recyclable and what is trash, and having the instructor check their work before they dispose of everything.