

Garbology: What's the Best Place for Waste?

Grade Level 4th

Objective

Students will be able to:

- Think critically
- Distinguish between renewable and non-renewable resources
- Practice group participation

Duration 45 minutes

Standards

- SC.4.E.6.3 - Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.
- SC.4.L.17.4 - Recognize ways plants and animals, including humans, can impact the environment.
- SC.4.L.17.In.4 - Recognize things that people do to help or hurt the environment, such as recycling and pollution.
- SC.4.L.17.Su.3 - Recognize ways that people can help improve the environment, such as cleaning up trash.
- LAFS.4.RI.3.AP.7a - Identify relevant information presented visually, orally or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations or interactive elements on Web pages) to answer questions.

At A Glance

Students will learn which natural resources their common trash items are made from and will discover more sustainable ways to dispose of these items, such as reusing, donating, recycling and composting.

Background

Natural resources are things made in nature that people can use. They can be renewable, like plants, animals, water, and air, or they can be nonrenewable, like fossil fuels (oil, natural gas, and coal), Earth minerals and metals. Nearly everything we use, including objects and items that we tend to throw away, come from natural resources and took a considerable amount of time to form in nature.

When we're done using something, our first instinct is to throw it away. But what happens to that object? Does it just disappear? Everything has to end up somewhere, and unfortunately it often gets sent to a landfill where the resource is wasted.

When using objects, it's important to consider where it came from (did it take a long time to form?), what it's made from (is it made from renewable or nonrenewable resources?), and what will happen to it (could it end up as litter or in the landfill? Should it be recycled? Is there a better use for this object?). Let's think more responsibly about our garbage!

There are 4 main choices for deciding what to do with items you're done using:

1. Reuse or Donate
2. Recycle
3. Compost
4. Trash

If possible, Reuse or Donate is the best option, since it allows for the material to be used again in its current form.



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- LAFS.4.SL.1.AP.1b – Ask questions to check understanding of information presented in collaborative discussions.
- LAFS.4.SL.1.AP.1c – Make appropriate comments that contribute to a collaborative discussion.

Materials

- Garbology Powerpoint
- Garbology Worksheets

Vocabulary

- **Renewable resources** are those that can be replenished within a short period of time, such as air, plants, animals and water.
- **Non-renewable resources** are available in limited amounts and take millions of years to be replaced, like fossil fuels (oil, natural gas, and coal), Earth minerals and metals.
- **Recycle** means waste items can be used again to make something new.
- **Compost** is a way to recycle food and yard debris by letting it decompose into nutritious soil.

Preparation

1. Show students the PowerPoint and discuss what can happen to our waste (read the notes on the PowerPoint for background information).
2. Explain the 4 main options: Reuse or Donate, Recycle, Compost, or Trash.

Procedure

1. Have students divide into teams of 2-4 and complete the Garbology Worksheet. In the worksheet, they will be given a list of waste items and must decide the most sustainable disposal method (Reuse or Donate, Recycle, Compost, or Trash).
2. Teams will work together and come to a consensus on the best answer for each item, but each individual should be given a worksheet to complete.
3. Once the worksheets are completed, ask teams to discuss their answers with the class. Keep track of each team's answers on the board for all students to see and discuss. Teams may come up with different answers that are both correct – have the team justify their answer if different from the rest of the class.
4. Have a class discussion about what was learned today. Should we throw everything in the trash? Why is it important to think about what the object was made from?

