

Garbology Lesson: Compost Tag!

Grades K-5; K-4 Standards

Lesson Summary

Students will play a game that will reinforce their knowledge of what materials can and cannot be composted.

Overview

In this lesson, students will:

- Determine what items are biodegradable.
- Learn how all biodegradable items can be composted.

Time

30-45 minutes

Vocabulary

- Biodegradable
- Compost
- Decompose

Materials

- *The Dirt on Composting* Fact Sheet
- One soft ball



Preparation

Have students read the Student Fact Sheet, *The Dirt on Composting*.

Background

Every living thing on planet Earth eventually decomposes or breaks down into simpler matter. This is called **biodegradation**. Whether from the plant or animal kingdom, all living things are **biodegradable**. Biodegradable materials include twigs, wood chips, paper, cardboard, straw, leaves, bones, meat, dairy, fruits, vegetables and grains. Some less common biodegradable materials are dryer lint, kelp, junk mail and old cotton clothes and towels. Though some of these items are better off being reused or recycled (like paper or cardboard), all of them can be composted.



Your city may have a curb-side compost program that collects biodegradable materials from schools, businesses, and homes. All biodegradable materials can go into the green bin to be eventually turned into **compost**—a nutrient rich fertilizer. Students that have a green bin at their school can compost all food scraps, dirty paper napkins, soiled paper bags and used milk cartons. They can also compost pizza boxes, wax paper and Popsicle sticks. While school paper and clean, cardboard boxes can also be composted, it is best if they are placed in the recycling bin to be recycled into new paper products. Only when paper products are soiled with food should they be composted.

Non-biodegradable items that cannot decompose or be composted include metals like tin and aluminum, glass, and petroleum products like plastic. These items do not decay and should be reused or recycled.

For more classroom resources, visit:

Garbology.org/teachers



Activity provided by:

SF Environment

Our home. Our city. Our planet.

A Department of the City and County of San Francisco

Pre-Activity Questions

Ask students:

1. What does “bio-degradable” mean? (“*bio*” means life, “*degradable*” means able to break down or decay.)
2. What items are biodegradable? (*All things from the plant and animal kingdoms like: paper, straw, leaves, bones, meats, dairy, fruits, vegetables, grains, junk mail and old cotton clothes and towels.*)
3. What is composting? (*Composting is when we put food scraps into an outdoor pile, worm bin or green bin so they can break down into nutrient rich fertilizer. All biodegradable items can be composted.*)
4. Even though all biodegradable items can be composted, is it better to compost a piece of school paper or recycle it? Why? (*When paper is clean—like school paper— it is best to recycle it, because then it can be made into new paper and help save trees. Only when paper is soiled or dirty with food should it be composted. Dirty paper, like used paper napkins, cannot be recycled.*)
5. What about an old cotton t-shirt that has been outgrown? Is it better to compost it or reuse it by giving it to someone else to wear? (*If possible, it’s always better to reuse something rather than recycle or compost it. Only when something like a t-shirt is worn out and can’t be used anymore, even for rags, should it be composted.*)
6. Are aluminum cans, glass bottles and plastic bottles biodegradable? Why not? (*No. They are made from materials like minerals and oil that do not decay.*)
7. Since these items cannot be composted, what should be done with them? (*All cans and bottles can be recycled.*)



Classroom Activity

1. Ask students to list biodegradable items that can be composted and write their answers on the board. Do this for 2-3 minutes. You may also want to list items that cannot be composted. Erase answers when done.
2. Tell students they will be playing a game. Stand them in a circle outdoors (*best option*) or indoors.
3. Call out a student’s name along with something that can be composted: “Ruby, Banana Peel!” Toss the ball to the participant named and then sit down. The students continue in this fashion, calling out compostable materials and tossing the ball to the named student, until everyone is sitting.
4. Now the tag part can begin. One student is placed in the middle of the circle (by volunteering or being chosen by the teacher) and becomes “it.” The student who is “it” must tag the person with the ball before the ball is tossed. The person throwing the ball names something that can be composted and then throws it to someone else before being tagged. If the person with the ball doesn’t name something before s/he throws the ball, s/he will be tagged, and thus becomes “it,” and changes places with the student in the middle. The game is over when all students have had the chance to be “it.”



National Science Standards Addressed

Grades K-4: Properties of objects and materials (4BPS1)
Properties of earth materials (4DESS1)

For more classroom resources, visit:

Garbology.org/teachers



Activity provided by:

SF Environment

Our home. Our city. Our planet.

A Department of the City and County of San Francisco