

# Pre-School Composting and Recycling!



Pre-K

## Lesson Summary

Students learn how to compost and recycle by playing a sorting game.

## Time

Activity One: 15 minutes

Activity Two: 10 minutes

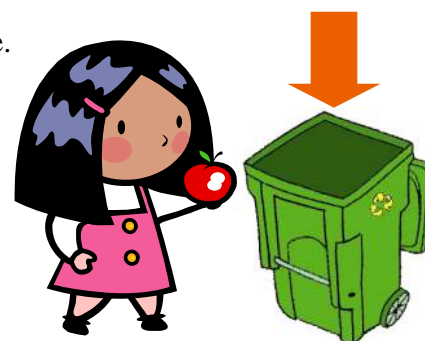
## Background

Nature is wonderful! The natural world is filled with things children love: animals, trees, flowers, fruit, crystals, clouds, sand, and countless other things. *Everything* we use comes from something originally found in nature. These things are called natural resources. Natural resources come from nature and are used or turned into the things we want, and the things we need to survive. Natural resources include trees, petroleum, water, air, sunlight, wind, rocks and minerals. Since everything originally comes from the natural world, if we want to protect nature, the most helpful thing we can do is to simply use less stuff. And, once we have used something, ideally it's something we can reuse, recycle or compost.

Every day, people in the City of San Francisco make four million pounds of garbage that gets sent to the Altamont Landfill sixty miles away. We can keep much of this waste out of landfills by recycling and composting. Recycling all clean paper, all bottles, metal cans and all hard plastics including broken toys\* into the blue bin helps protect nature and animal habitat, as well as conserve the natural resources we depend on. Composting our food scraps, yard trimmings and dirty paper such as napkins, milk cartons and coffee cups into the green bin, helps build precious topsoil and reduce the use of chemical fertilizers by providing nutrient rich, organic compost that is used on local farms and orchards. Composting also helps fight global warming! That's because when we bury food scraps at the landfill, they don't break down properly and create methane gas as a result, which contributes to global warming.

The City of San Francisco and Norcal, the local waste hauler, have teamed together to create an innovative garbage collection program called *The Fantastic 3 (FAN 3)* which uses three different colored bins: green for compostables, blue for recyclables, and black for trash. By using all three bins, San Francisco residents can keep thousands of tons of waste out of the landfill while helping protect nature, fight global warming and conserve natural resources.

*\*As of April 2008, the City of San Francisco is accepting all hard plastics for recycling in the blue bin. The only plastic materials that cannot go into the blue bins are: plastic bags, plastic film and Styrofoam.*



## Materials:

- *Dirt on Composting* Fact Sheet
- Plastic shopping bag
- **Recyclables** – paper (classroom paper, newspaper, cardboard)
- **Trash** – aseptic juice boxes (w/ metal on inside), Styrofoam, plastic wrap, straw, plastic utensil, chip bag or wrapper
- **Compostables** – school breakfast or lunch leftovers, including: food, paper napkins, used paper plates, bowls, empty milk and juice cartons
- Class recycling bin
- Classroom trash can
- Classroom compost container with your room number on it.
- Jar of dirt, big enough to hold up and show your students
- (Optional) Small buckets or containers to collect materials at each lunch table



## Preparation

1. (Optional) Read: *The Dirt on Composting* Fact Sheet.
2. Clearly label compost container. (Ex: Use green container or tape pictures of compostable items and write 'Compost Only'.)
3. Set up recycling, composting and trash bins next to each other at front of your classroom's circle time location, or conduct lesson in the cafeteria.
4. Prepare bag of "garbage" to be used in Part 1 of this lesson by doing the following:
  - ❑ Make sure all recyclables, trash and compostables are clean enough to touch with bare hands.
  - ❑ Organize items to get them easily during the game.

## Procedure

1. Organize students into a circle.
2. Tell students they are going to start something new in class/at lunch that will help protect nature. Instead of throwing things into the garbage, they are going to recycle and compost! After seeing how to do it, they will play a game to practice.
3. Explain that **Recycling** means "Turning something old into something new." For example, when we recycle old paper, it can be made into new paper. (*Hold up a piece of used paper.*)
4. Hold up all paper samples (school paper, newspaper, cardboard box (or cereal box)) and demonstrate putting all clean paper into BLUE recycling bin.
5. Tell students that when we recycle paper, we are helping protect nature because paper comes from trees. Trees are an important part of nature that give most animals their home. For example, monkeys, birds and koala bears live in trees. So, remember when we recycle paper, we help protect trees and also help protect animals and nature!
6. Explain that from now on, all students will recycle paper into the classroom blue bin, and that they can recycle at home too.
7. Point to the green container and explain that **Composting** means "Turning old food and dirty paper into dirt." (*Hold up a food scrap and then the container of dirt.*)
8. Ask students to say the word "compost" aloud.
9. Explain that when we have leftover food that we won't eat anymore, and dirty paper plates and empty juice cartons, that we should put these leftovers into the GREEN bin so that we can compost. (*Demonstrate this for all students to see.*)
10. Tell students that worms and other helpful bugs will eat these leftovers and turn them into dirt that is very healthy for plants. (*Hold up jar of dirt.*)
11. Explain that worms will eat all our leftover food and they can also eat dirty paper. (Note: Food-soiled papers, like paper plates, are too dirty to recycle, which is why we should compost them instead.)

11. To help students remember what can be composted, tell them to think of it as “worm food.” If a worm can eat it, they can put it into the compost bin!
12. Now it’s time to talk about **Trash**. All the items that can’t go into the compost or recycling bins go into the trashcan. (*Hold up items such as: plastic saran wrap, foil chip wrappers, plastic bags.*)
13. Ask students if they think a worm can eat these plastic and metal things? (*Hold items up and shake your head “No!”*)
14. A worm cannot eat these things! Since they can’t be recycled, they belong in the trash. (*Place items in front of the trash can.*)
15. Tell students they will now play a sorting game.



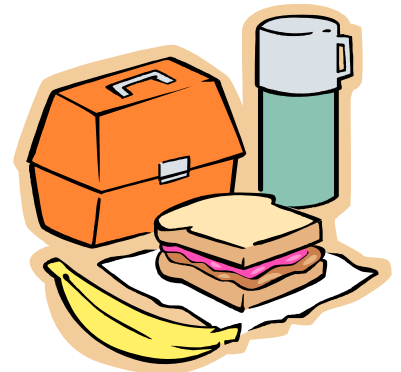
### Circle Time—Sorting Game

1. Tell students you will give each of them an item to put into one of these bins: compost, recycling, or trash.
2. Give several students sitting next to each other a piece of trash; give the next several students paper that can be recycled; give remaining students an item that can be composted.
3. Call the group of students with trash to come up first and put the trash into the correct container. Allow them each to put their item into the proper bin. Repeat this same step with the recycling and composting students.
4. When finished, conclude by saying: You all did a great job today. I can see that you are all going to be VERY good at composting and recycling!
5. Inform students that today after lunch, they will begin to compost. They need to listen carefully to their table teacher for instructions about what to do when they’re done eating.



### Preparation: Lunchtime Composting

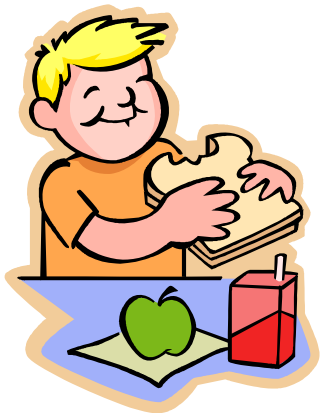
1. If you would like to use small containers or larger bins for collecting composting, recycling and trash at your table, then put them on or near the table at lunchtime.
2. Coordinate the details of your new program with lunch staff.
3. A couple things to consider if you eat in the classroom:
  - ❑ Find out if your classroom compost bin can be delivered and collected with your meals each day.
  - ❑ At the end of each meal or day, transfer collected food scraps into the larger green bin rather than keeping individual bin full in your class for more than one day.
  - ❑ Learn where your site will store the green composting bin and blue recycling bin.





### Lunchtime: Let's Begin!

1. When students sit down for lunch, remind them that when they are done eating, they will be composting and recycling.
2. They should remain at the table and *not* get up to sort anything until instructed.
3. At the table, help students determine which of their leftovers can be composted and recycled. The rest will be trash.
4. When separating their leftovers, students should create a pile for recycling, composting and trash. Small containers at the table can be used for this task if you like.
5. When ready, transfer the piles or small containers into the appropriate larger bins, or have students do this themselves.



### Optional Extensions

1. Do *Fan 3 Sort and Color* activity.  
[http://www.sfenvironment.com/aboutus/school/teacher/lesson\\_plans.htm](http://www.sfenvironment.com/aboutus/school/teacher/lesson_plans.htm)
2. Have students help make signs showing what goes into the composting and recycling containers. Affix images from *Fan 3 Color and Sort* and/or real items to poster board.
3. Create a worm bin in your classroom so students can see the vermicomposting process.  
[http://www.sfenvironment.com/aboutus/school/teacher/lesson\\_plans/worm\\_bin.pdf](http://www.sfenvironment.com/aboutus/school/teacher/lesson_plans/worm_bin.pdf)
4. Create a felt board story of children, families, friends and teachers helping to protect nature by composting and recycling.
6. Read books on composting and recycling at circle time.
7. Sing Songs about composting and recycling.

