

## Lesson 3: Compost Card Game

### Grade Level:

3rd Grade

### Concepts Taught:

Composting

**Activity Time:** 10-15 minutes

### Essential Questions:

- What are the 3 “ingredients” in compost?
- If one of the “ingredients” is missing will the compost pile rot?

### NC CORE/Essential Standards:

Math: 3.NBT.1

Healthy Living: 3.ICR.1.1,

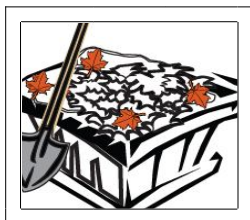
3.ICR.1.2, 3.ICR.1.4, 3.ICR.1.5

### Materials:

Compost cards (below), 1 of each type for each student

### Objectives:

- Students will utilize a card game to recognize the ingredients necessary to successfully make compost







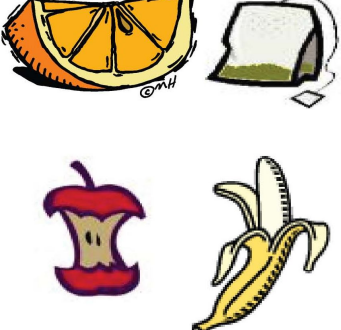



*Note: This lesson is adapted from an activity originally developed by Brooke Smitherman*

### Procedure:

1. Print out enough copies of the compost cards below so that each student has one of each card (Browns, Greens, and Soil, Water, and Air). Cards should be printed on colored or thick paper so that students cannot see through the back of the card.
2. Discuss with students how materials are recycled in nature through a variety of means: decomposers, detritivores, and composting. Decomposers, such as mushrooms, get their nourishment from leaf litter or decaying matter. Detritivores are animals that eat decaying organic matter (leaves, bark, trees, etc.) such as earthworms or beetles.
3. Remind students of the three basic things that are necessary to make compost:
  - a. **Greens:** Nitrogen-rich materials such as grass clippings and food scraps (items such as peelings, bread, rinds; but no cheese, meat, or bones)
  - b. **Browns:** Carbon-rich materials such as dried leaves, straw, and newspaper
  - c. **Soil, Air, and Water:** Compost piles often need “starter” soil rich in microorganisms, frequent turning of the pile to allow air in, and watering to encourage decomposition
  - d. Arrange students in groups of three and give each student one of each card: Browns, Greens, and Soil, Water, & Air.
4. This game will be played similarly to “Rock, Paper, Scissors.” The object of the game is for the group of three students to make compost with their cards. In order to make compost, each player will have to show a different card. For example, two “Greens” cards and a “Soil, Water, Air” card will not make compost.
5. Most groups like to count “One, two, three, go!” and then all players show a card without looking at which card they are choosing. When a group has one of each card played, they can say “Compost!”

### Extensions/Modifications:

Groups can count how many times they get compost and compare with other groups’ results. Probability and statistics can be calculated as well.

<p><b>Browns</b></p> 	<p><b>Greens</b></p> 	<p><b>Soil, Water, Air</b></p> 
<p><b>Browns</b></p> 	<p><b>Greens</b></p> 	<p><b>Soil, Water, Air</b></p> 
<p><b>Browns</b></p> 	<p><b>Greens</b></p> 	<p><b>Soil, Water, Air</b></p> 