

Objective

Students will positively impact their environment by conserving natural materials.

Part 1

Discovery Learning

Show students pre-made compost without telling them what it is.

What do you notice? See? Smell? Feel?

Ask students to name items that get thrown away at school.

Some of the stuff we throw away is “biodegradable.” What does it mean to be biodegradable? This banana peel is biodegradable. This plastic bottle is not. What do you think it means to be biodegradable?

Biodegradable means an item is capable of being broken down by bacteria and other organisms. Composting is a method of decomposing organic wastes. Composting is nature’s way of recycling. Composting is something we can start doing in our garden outside to help positively impact the environment.

Brainstorm items that can be composted. Tell students that tomorrow we will be examining their breakfasts and lunches to determine what could be biodegradable. Not all biodegradable items should be composted. Explain why we don’t compost meat and dairy products (attracts unwanted critters).

Part 2

Discuss what they ate for lunch and breakfast. Sort the items that can and cannot be composted. Example: oven-roasted chicken, broccoli, banana, and juice box. Make a T-chart and sort compostable (banana, broccoli) and not compostable (juice box, chicken).

Grade Level: 2

Subject Area: Social Studies

Materials:

Do the Rot Thing document
Compost bin or space in the garden to create a compost pile
Journal for documenting food
T-chart of biodegradable vs. not
Compost It by David Barker
Compost for discovery activity

Standards:

2.G.2 Understand the effects of humans interacting with their environment.
2.G.2.2 Explain how people positively and negatively affect the environment.
2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yard sticks, meter sticks, and measuring tape.

Collaborators:

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Ask students, where did your food come from? Example: chicken came from a farm, broccoli possibly from a garden or produce farm, bananas grow on trees in tropical climates. Draw a picture of where your food comes from. Have students write a paragraph describing how their lunch came from the farm or field to their plate.

Complete chart of what they had and what can and cannot be composted.

- banana peels, oranges, apple slices, etc.
- juice box, yogurt container, zip-top bag, chip bag, etc.

Brainstorm what you can do to help the environment and reduce the number of non-compostable items. Example: instead of buying individual juice boxes, you could use a refillable thermos to bring water from home.

For the rest of the week, have students record in their journals what they ate (breakfast, lunch). Have students create their own T-chart for biodegradable vs. non-biodegradable as well as compostable vs. non-compostable. This will keep students aware of how much “waste” they are generating.

Part 3

Explain to students that we will be creating a class composting project. Teach students the three basic steps to creating compost.

1. Chop materials into pieces that are six inches or less - have students measure their own pieces.
2. Mix browns and greens (browns: dried leaves; greens: grass clippings, vegetable waste)
3. Maintain moisture by adding water to the pile when needed.

Have students begin to collect composting materials. Students could bring in leftover biodegradable food (salads without dressing, fruits, vegetables), papers, and pencil shavings. An idea would be to collaborate with your cafeteria about the fruit and vegetables they are throwing away.

Have students help create the compost and discuss why you’re putting certain materials into the compost rather than others.

Part 4

Maintain the compost pile. It may take several months for the pile to be ready to use. Turning it frequently will speed up the process.

Students will choose between a pamphlet, slideshow, or tri-fold/poster to present their knowledge and findings about creating and implementing compost in order to positively impact the environment.

Once compost is complete, have students enrich the garden soil with their compost.

Extension

Take a sample of compost and a sample of soil in the garden and make some observations. Plant a lima bean seed in each sample and record observations about the differences and similarities of how the two plants grow.

Take two items, one biodegradable and one not, and bury them outside (possibly a pumpkin and a water bottle). Be sure to mark where you buried them for later reference. Dig them up monthly to observe the changes.

Your Notes & Ideas