



Brickyard Educational Farm

Compost Stew Station¹

Summary:

Students will learn the importance of compost as a form of waste reduction and creation organic fertilizer. Through hands on experience of compost creation students learn how to discern what will decompose in a compost pile. Students examine two methods of composting: no-turn pile, and worm composting. At the end of the activity, students learn that time is essential for creating compost as is air and water.

Enduring Understandings:

- Organisms that used to be alive are able to decompose.
- Farmers use decomposed plant based matter in the form of compost as fertilizer.
- People can create compost piles and build vermiculture bins to reduce food waste and build soil fertility.

Objectives:

- Students will learn what items will decompose in a compost pile.
- Students will be able to explain why we compost.

Vocabulary:

Compost, aerobic, fertilizer, vermiculture, castings, fungi, bacteria, invertebrates, decompose, aerate, red wiggler.

Materials:

Ingredients bag: Assortment of recyclables, trash and compostable items
Recycling receptacle
Trash receptacle
Compost cauldron and stirring stick
Worm bins
Finished compost
Food Scraps
Spray bottle

¹ (Lesson in part from Arcadia in Washington, DC: <http://arcadiafood.org/>)

“Magic” compost cloth

Engage:

Today we are going to make compost. What is it for?:

- What is compost stew?
- Who is it food for? Compost stew is food for plants.
- Compost is great organic fertilizer for plants
- Compost needs air, water and FBI's (Fungi, bacteria, and invertebrates) to decompose.
- Anything that used to be alive can decompose. (That means we can put it in our compost cauldron).

Explore:

- Sit down around compost cauldron, trash and recycling receptacles
- Pass around finished compost for students to use their senses to investigate what finished compost stew looks like.
- Sort ingredients into respective receptacles
- Add water and finished compost to cauldron following compost stew recipe.
- Stir and cover with “magic” compost cloth. Recite compost chant.
- Uncover and observe the unfinished compost.
- Ask students why nothing happened, and what needs to happen for this to turn into compost.
- Take out worm bin and allow students to observe vermiculture compost.
- Ask students what worms are doing and eating
- Add a layer of food scraps to the compost “lasagna” pile and cover

Explain:

Students make hypotheses about why compost stew recipe did not work after the magic chant.

- Explain that time is essential for FBI's to decompose the ingredients.
- What invertebrates that you can pick up are important for making soil and compost?
- What are worms doing for us in the worm bin?
- Explain that Red Wigglers are a special kind of worm in our compost different from the common garden earth worm.
- How will the compost help the farm?

Elaborate:

- What kind of composting system would work best at your school or home considering in-door and outdoor space requirements, amount of available food scraps and other compostable materials?
- Where in our community could we find food that could be composted instead of thrown out?

Evaluate:

Ask students at the end of the station:

- Why do we create compost?
- Describe what finished compost should look, smell and feel like.
- What role do worms play in compost and soil?

(See evaluation sheet for post field trip assessment)*

Prepare students for the next station:

Give students a handful of finished compost to fertilize their favorite plant.