

# Composting

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**Overview:** Composting is a simple way to turn garden and kitchen waste into nutrients to add to the soil. This promotes plant growth, is good for the environment, reduces garbage, and returns carbon to the soil. Compost containers should be located in the school cafeteria for students to collect compostable materials during lunch periods. Waste can then be brought to an outdoor bin. Procedures should be implemented to ensure that only food matter is added to containers to avoid contamination.

**Targeted Grades:** K – 8

**Materials needed:** a barrel or bin inside the cafeteria, a larger rotating composter outside, space for outside bin, a sufficient amount of food to compost

### Standards

NGSS Standard(s)	Common Core Math Standard(s)	Common Core ELA Standard(s)
(by grade level) ESS3 Earth and Human Activity	MP.2 Reason Abstractly and quantitatively  M.4 Model with mathematics	(by grade level) RI: nonfiction reading  W: Writing, Research and Gathering information  SL: Conversations and presentations

There are many other potential connections, based on your grade-level and curricular goals. Check your grade-specific standards for others.

**Standard-Based Curriculum Connections:** Composting can support your curricular goals in many ways including, but not limited to, the example below.

**Science** – Students can investigate the length of time for compostable materials to decompose in an experiment and compare it to how long it takes for them to decompose in a compost bin. Suggestions include students read about composting, and design their experiment and measure results. Possible variations: in a wire cage outdoors exposed to the elements, under several inches of soil, or in a closed plastic bag.

**Math** – Students can weigh the cafeteria containers before adding them to the outdoor compost bin to see how much garbage has been repurposed to help create rich soil. A graph can be made to keep track of the amount that the students are composting. Temperature can be measured and graphed to interpret the temperature as a function of time that is needed to process compost.

**ELA** – Students can write a persuasive essay, create posters, or media campaigns to convincing others to compost.

**Social Studies**– Students can research the role that composting plays in helping to create a sustainable environment and the benefits that it has on the environment. Students can investigate if composting is available with the trash collection in their community.

**Art** – Students can create signs that include pictures of items to be composted. These can be placed on the cafeteria bins to help with awareness of what to place in the bin.

**Considerations** - Your outdoor compost should be properly balanced of both “green” and “brown” materials. Suitable browns include dry leaves, wood chips, straw, sawdust, and newspaper. Some of these might be available from local businesses. Food scraps are your main green material, but there are other usable greens like grass clippings, coffee grounds, recently pulled weeds, and manure.

**Engagement and Community Involvement** -\_Some of the most meaningful learning activities are ones that allow for community and parental involvement. **Composting** may be used to promote community engagement in the following ways:

Home Connection – Student-created information to begin home composting.

Master Composting program –invite one to your school! Visit <http://www.ctmga.org/> the Connecticut Master Gardener Association

#### **Additional Resources on Composting**

[Composting 101](#)

[Cafeteria Composting in Schools](#)

<http://www.greenmountainfarmtoschool.org/wp/wp-content/uploads/Guide-to-Staring-a-School-Compost-Program.pdf>

*Composting for Beginners: Easy and Economical Methods to Improve Yields in Your Garden* by Calvin Hale

*These suggestions are examples only, and may require adaptation. Check your grade-specific standards to determine whether or not the suggestions provided meet your individual curricular needs.*

*For more information, contact [ctgreenleaf@ctgreenschools.org](mailto:ctgreenleaf@ctgreenschools.org)*

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