



Composting

Between 30 and 40 percent of the food supply in the U.S. is thrown away, leading to the decay of enormous amounts of organic matter in landfills—a process that releases harmful gases, like methane, into the atmosphere. Composting is one way to combat food waste and reduce methane emissions, as organic materials are broken down into nutrient-rich soil that can be returned to the earth to grow more food. What's more, the composting process releases no harmful emissions. It's an important component of waste diversion, and it involves a lot of biology, chemistry, and physics in addition to sustainability.

Composting is an exciting learning opportunity because it involves things like worms, decomposing food, dirt, and poop! We encourage you to use this month for students to roll up their sleeves and learn composting hands-on. Remember that the activities below are organized by suggested grade level, but they may be applicable across grade levels.

Activity Ideas

Pre-School + Kindergarten

1. **Read about composting.** There are lots of fun books about composting, including [Compost Stew](#) and [plenty of others](#) to choose from.
2. **Choose a worm activity.** [These hands-on activities](#) help to teach students all about worms and how they relate to composting.
3. **Watch a video.** [This Peppa Pig video](#) provides an overview of composting, starting in the kitchen and ending in the garden.

Grades 1-3

1. **Choose from the activities on this website.** [This page](#) discusses how to teach composting by crafting a soil-arium, acting out the narrative from a composting book, or playing games on an interactive website.
2. **Choose from these lesson plans.** [This document](#) contains a variety of composting lesson plans, including a lab, a card game, a relay, and more!
3. **Watch a video.** Watch [this 6-minute introductory video](#) on composting, which covers landfills, what composting is, why composting is important, and how to do it.

Grades 4-6

1. **Choose an activity from a long list.** [This document](#) has instructions for all kinds of composting activities to choose from!
2. **Learn the basics of composting.** [This lesson plan](#) involves the basics of composting, along with what is biodegradable and what's not. It also includes a group research and presentation activity at the end.
3. **Watch a video.** [This TED-Ed video](#) explains the problem of food waste and how worms can help—an overview of vermicomposting.

Grades 7-12

1. **Set students loose to do their own research.** [This website](#) provides great ideas for student research projects on composting, and there are plenty of other ideas out there!
2. **Watch a video.** [This video](#) explains exactly how worms turn garbage into compost, including the chemistry, biology, and physics behind the process. [This one](#) discusses biosolids and how human waste can be turned into fertilizer. You can also choose from [this YouTube playlist](#) of videos that explain the chemistry behind composting—taking it a step farther than the basics.

Everyone

1. **Try out vermicomposting in your classroom.** Allow students the hands-on experience of trying [this vermicomposting](#) set to learn how decomposers transform organic material into rich soil components.
2. **Show the difference composting can make.** Purchase a sample of finished compost from a garden store and compare it to food waste from the cafeteria. Use the visual to start a conversation on the process of composting.

Let Us Know What You Did!

Report your progress and earn recognition for your school. Fill out your school's row on the [GSC Tracking Document](#) to let us know which activity you did for this month!

Questions?

We're here to answer any questions you may have, talk through ideas or provide further resources. Just email gogreen@kearneycats.com.

RECOGNITION LEVELS

All KPS schools have the opportunity to earn recognition for their participation in the Green Schools Initiative each year. The more activities you complete, the more recognition you receive! For 2019-2020, the following three levels of recognition are available:

- **Level 1 (Green Performance)** - Participation in 5 activities during the year. Schools receive a framed certificate of recognition, \$50 for Green Team Activities next year, and \$100 for the Principal's budget.
- **Level 2 (Green Achievement)** - Participation in 6 - 9 activities during the year. Schools receive \$150 for Green Team activities next year, an award banner, and \$200 for the Principal's budget
- **Level 3 (Green Excellence)** - Participation in 10 or more activities during the year. Schools receive \$300 for Green Team activities next year, a large award banner, and \$400 for the Principal's budget. In addition, all schools that achieve Level 3 participation are placed into a raffle; the selected school receives \$450 to spend on district-approved items. Approved items could entail smart power strips, vending machine energy misers, native landscaping/trees, rain barrels, native plants for classrooms, and indoor/outdoor recycling containers. All items must be approved by the district office prior to purchase.