

Governor's Conservation Classroom Challenge

Challenge # ES-12

Title: Start a Composting Project

Grade Level: 3-5

Subjects: Agriculture

Abstract:

Composting is a great way to practice responsible environmental stewardship while offering opportunities to support healthy soil. As a conservation challenge, a class can start a compost pile using a commercial bin, wooden freight pallets or even a 5 gallon bucket. Students gather select food and paper waste generated during the school day, maintain the compost pile, and carefully monitor the decomposition of brown (untreated paper or leaves) and green (vegetable or plant) waste. Once the compost has sufficiently decomposed, students may plant seeds in soil enhanced with compost to observe the effect that the addition of the compost has on plant growth.

Objectives:

Students will: recognize organic matter as a critical component of healthy soil; distinguish between materials that readily biodegrade and those that do not; and discover the required components of a composting system. They will: predict the time it takes to compost a specified volume of material; monitor the progress of the decomposition and observe reductions in the portion of the waste stream that must be removed as trash.

Materials:

Large bin (or materials to construct a bin), watering can, soil, pitchfork or rake to turn the compost, small plastic bin to transport waste, paper and plant waste
Seeds and containers to plant seeds (optional)

Safety:

Utilize plastic gloves and wash hands as needed when handling waste and compost. Select kid friendly tools for turning the compost pile.

Background: Additional teacher background for this challenge can be found in the [Virginia's Natural Resources Education Guide](#) Waste Management and Pollution Prevention

Procedure:

Obtain approval for the project from school administrators and make certain maintenance staff understand what is taking place.

Using the instructions found at <http://www.sodgod.com/composting/>, have students create a compost bin or start a compost pile. Encourage students to collect food scraps from their lunches and snacks and paper waste from the classroom, to build and maintain the compost pile or bin. Examine the compost pile with students and have students record their observations on the decomposition of the waste once a week for one month.

An alternative procedure can be found in Activity 8 of "Do the Rot Thing, A Teachers Guide to Compost Activities" originally published in 1997 by the Alameda County Waste Management Authority & Source

Reduction and Recycling Board. It can be downloaded at:

http://www.cvswmd.org/uploads/6/1/2/6/6126179/do_the_rot_thing_cvswmd1.pdf.

This resource includes sample lesson plans as well as instructions on how to convert a 5 gallon to a compost bin.

Stewardship:

Conducting this composting challenge in and of itself is an excellent stewardship activity.

Additional Resources:

Local offices of Virginia Cooperative Extension have instructions on how to construct and use a basic backyard type composting system.

Regional waste authorities and municipal litter and recycling coordinators often have localized curriculum and resources, and may be available for on-site assistance.