



The 2011-2012 Fairchild Challenge for Elementary Schools Challenge 5: School Garden/Habitat Restoration How-to Guide

I. Overview

The school garden/habitat restoration challenge is an engaging and creative way for students to beautify their school or community. Furthermore, this challenge offers many possibilities across the curriculum for teachers to use the garden/habitat as an outdoor classroom. Not only is the school garden a place that students can use to relax and enjoy during the school day, but there is a wealth of research about the physical, mental, intellectual and social benefits of a school garden.

II. Approaching the Challenge

There are several important steps to creating a successful school garden. Use the following list as a basic guide:

1. **Create a team** that will plan, implement and maintain the garden. Include teachers, administrators, grounds crew staff, parents and students in this team.
2. **Involve students in the process.** Have students create designs on paper, thinking about what elements they envision and what they will be doing in the garden. Gardens that have student input are more creative, whimsical and alive.
3. **Tap community resources.** Master gardeners, garden clubs, college students, nursery growers and other community members may be able to provide expertise and donate supplies.
4. **Choose plants and location wisely.** Encourage students to research what plants grow well in their area, focusing on native plants that are adapted to the environment and provide food for wildlife.
5. **Use the garden across the curriculum.** The garden is a wonderful springboard for learning about science, math, reading, writing, art, social studies, and more. Use Fairchild and other resources to find lesson plans and garden-based classroom activities.

Remember that for this challenge, you are required to 1) use the garden as a **cross-curricular learning tool** and 2) create **descriptive materials** such as a brochure, sign, guided tour, etc., to interpret your garden to visitors. You must provide evidence of both the cross-curricular use of the garden and the descriptive materials in the booklet, or points will be deducted.

As students prepare the booklet to be turned into Fairchild summarizing their projects, please remember that we want to see the **students' work and input**; this is best accomplished through a mixture of their words, images, and examples of student work

and data. Make sure that the booklet fully represents all efforts, as judges base their evaluations entirely on the booklet.

Please remember to read the **requirements** for this challenge carefully, and note the **evaluation criteria** listed for this and all challenges. School garden/habitat restoration projects will be judged on content and scope of work, breadth and depth of student involvement, quality of descriptive materials, documentation of use of the garden/habitat in the classroom or school activities, creativity, relevance to theme and presentation of the project,

To learn more about creating and using a school garden in the curriculum, we strongly encourage you to attend a School Garden Workshop at Fairchild. For more information on workshops, contact challengepk-5@fairchildgarden.org.

There are many opportunities available to receive funding for your garden. Fairchild offers mini-grants for school garden/habitat restoration each year; look for the required application due in early October. Visit www.kidsgardening.org for a list of many other available grants. Remember to tap local community resources for potential funding and donations.

III. Incorporating the School Garden into your Curriculum

There are many ways to incorporate cross-curricular connections into the school garden. Here are a few suggestions:

1. Science:

- Study and compare the growth requirements of different plants
- Learn about plants and their pollinators
- Make your school garden a native species habitat and educate the students about the dangers of invasive species

2. Math:

- Incorporate math into the garden design, when planning on paper and when measuring and mapping the actual garden
- Keep a plant-growth journal for a certain period of time; include plant measurements in both metric and standard units
- Use charts to compare plant germination and growth
- Calculate cost differences between different approaches to the garden, for example, native vs. non-native plant management

3. Language Arts:

- Use your outdoor classroom for diary entries and creative writing exercises, in English or in other languages
- Study plant names and Latin roots of words and their meanings
- Create descriptive materials or guided brochures for guests of the garden

4. Social Studies:

- Learn about Florida’s natural history and the influence the natural landscape has had on the community
- Learn about Ethnobotany, and the connections of culture and the environment
- Select two cultures and compare and contrast their lifestyles in relation to plants. (i.e. are they contemporary or more traditional?)

5. Art/Performing Arts:

- Use the garden as inspiration for an art piece
- Design descriptive materials for the garden
- Have monthly-themed art exhibits/installations using your garden
- Create art projects such as wind chimes, wind spinners, themed-planters, weathervanes, bird feeders, plant stakes, etc. Consider creating these projects in an eco-friendly manner!
- Have garden-themed plays and musicals

6. Culinary Arts:

- Grow your own vegetables and spices and use them to create snacks and meals
- Study food plants and recipes from different cultures

IV. Habitat Restoration and the Connect to Protect Network (CTPN)

Habitat restoration projects provide a unique opportunity to incorporate the local environment and conservation efforts into the school garden. If your school is interested in undertaking a habitat restoration project as part of this challenge, you can obtain information and resources through Fairchild Tropical Botanic Garden’s **Connect To Protect Network** (CTPN). This program works with members of the community, including schools, to re-create, restore and maintain pine rockland habitats in South Florida, as well as to collect important data about the rare species that grow in this highly endangered habitat. Fairchild staff are available to consult, guide, provide expertise, and provide plant materials for schools participating in the program.

For more information, visit www.fairchildgarden.org/connecttoprotect or contact Devon Powell at dpowell@fairchildgarden.org.

V. Select School Garden Resources

Books: (* indicates Preschool focused text)

Barrett, Katharine D.; White, Jennifer M.; and Manoux, Christine. (2008). *Botany on Your Plate: Investigating the Plants We Eat*. South Burlington, VT: National Gardening Association.

Barrett, Katharine D.; Johnson, Katie; Kopp, Jaime; et al. (2006). *Math in the Garden, Hands-on activities that bring math to life*. South Burlington, VT: National Gardening Association.

Bucklin-Sporer, Arden & Pringle, Rachel. (2010). *How to Grow a School Garden, A complete guide for parents and teachers*. Portland: Timber Press, Inc.

*Council for Environmental Education. (2009). *Growing Up Wild: Exploring Nature with Young Children Ages 3-7*. Houston, TX: Council for Environmental Education.

Hannemann, Monika; Hulse, Patricia; et al. (2007). *Gardening with Children*. New York: Brooklin Botanic Garden, Inc.

Jaffe, Roberta & Appel, Gary. (2007). *The Growing Classroom: Garden-Based Science*. South Burlington, VT: National Gardening Association.

*Kalich, Karrie; Bauer, Dottie; and McPartlin, Deirdre. (2009). *Early Sprouts: Cultivating Healthy Food Choices in Young Children*. St. Paul, MN: Redleaf Press®.

National Gardening Association. (2002). *Schoolyard Mosaics, Designing gardens and habitats*. South Burlington, VT: National Gardening Association.

Texas Agricultural Extension Service. (2004). *Wildlife GardenerSM: A Junior Master Gardener[®] Golden Ray SeriesSM*. College Station, TX: JMG[®] Kids.

Waters, Alice. (2008). *Edible Schoolyard, A universal idea*. San Francisco: Chronicle Books LLC.

Websites:

Kids Gardening <http://www.kidsgardening.com/>

School Garden Wizard <http://www.schoolgardenwizard.org/>

The Edible Schoolyard <http://www.edibleschoolyard.org>

Junior Master Gardener <http://www.jmgkids.us/>

Outdoor Classroom <http://www.outdoorclassroom.org/>

Youth Gardening California School Garden Network <http://www.csgn.org/index.php>

Chicago Botanic Garden <http://www.chicagobotanic.org/schoolgarden/index.html>

Florida Department of Education <http://www.fldoe.org/BII/CSHP/schoolgar.asp>

South Florida Plant Species and Habitat Conservation at Fairchild
<http://www.fairchildgarden.org/centerfortropicalplantconservation/speciesandhabitatconservation/>

Florida-Friendly Landscaping <http://www.floridayards.org/landscape/index.php>

Plant Real Florida <http://dev.plantrealflorida.org/>