

Fairchild Challenge for High Schools

Challenge Resources 2011-2012

How-to-Guide for Teachers

Challenge 10 – Environmental Action

- I. [Overview](#)
- II. [Approaching the Challenge](#)
- III. [Incorporating Environmental Actions into your Class](#)
- IV. [Checklist](#)
- V. [Resources](#)

I. **Overview**

The Environmental Action challenge is designed to allow students to initiate, sustain and promote environmental initiatives in the home, school, and community, while teaching students that individuals can make a difference. It develops students' leadership skills in promoting environmental awareness among their peers and encourages cooperation between schools on environmental issues. Applying classroom lessons to real-world situations builds civic-minded thinkers and actively engaged citizens.

II. **Approaching the Challenge**

As your students participate in this challenge, remember the following important points: (1) The environmental actions and entry should be student-led; (2) all requirements for the challenge must be met to be eligible for first place for the challenge; (3) all three areas: **home, school and community** must be targeted (each area counts for 100 points); (4) at least two initiatives must be quantifiable. Remember that you are being asked to undertake projects that raise environmental awareness in the **home, school and community**. Not all of these target areas must be addressed in every single environmental action project, but each of them must be represented by at least one of the projects summarized in the video, or points will be deducted. Students are advised to participate in as many impactful environmental actions throughout the school year as possible.

Teachers are encouraged to engage as many students (and teachers) as possible. We advise you to schedule environmental actions during class time, after-school and/or on weekends, to offer multiple opportunities to engage the maximum number of participants. Include the students in designing, planning and implementing actions.

Help students to clearly define the outcomes for their projects. To view evaluation criteria, see [Challenge 10 evaluation sheet](#). **At least two initiatives must be quantifiable** (i.e. data collected through measurement and/or

calculations) and the data must be presented in the video. Examples include tree canopy measurements, carbon footprint calculations, or water use reduction.

III. Incorporating Environmental Actions into your Class

We have provided some suggestions below for project ideas; however, originality is welcomed. Opportunities for environmental initiatives are endless and creativity is encouraged!

A. Home

- Set a recycling goal for your household
- Create a Florida-friendly habitat in your backyard that invites wildlife and minimizes environmental impact
- Educate and encourage your family to become responsible purchasers and consumers
- Encourage your family to have one sustainable (vegetarian, locally-grown or organic) meal each week
- Implement a water saving plan and/or monitor your water bill

B. School

- Host an Earth Day event at your school.
- Show an environmental documentary film at your school and donate proceeds to an environmental organization.
- Have a school grounds clean up. Provide recycling containers and dispose of other materials properly.
- Devise a plan to reduce waste at your school, involving recycling as appropriate.
- Create a mentoring program for older students to teach younger students about environmental issues, either at your school or between two schools.
- Post environmental tips and reminders on posters in visible locations throughout your school
- Encourage your school's kitchen and maintenance staff to use environmentally-friendly products, and lobby the administration to make this possible.
- Conduct a biodiversity inventory of your school grounds, including plants, birds, butterflies, insects and other wildlife.
- Perform a school audit that surveys and analyses resource flow (i.e. energy, water, or waste) in a specified area, with the objective being to find ways to reduce consumption and usage.

C. Community

- Volunteer with a local environmental organization

- Assist with environmental education or initiatives at a local community center
- Host a fundraiser and donate money to an environmental cause
- Write letters about your environmental concerns to local politicians
- Participate in a citizen science project
- Create a mentoring program for students at your school to teach students at another school about environmental issues.
- Conduct a Citizen Science Project - Individuals contribute data to ongoing scientific research worldwide by recording measurements of local natural phenomena. Data is then entered into a collective database and translated into significant scientific statistics. A variety of citizen science opportunities can be researched on the internet, or you can visit Fairchild's [Environmental Action webpage](#) for additional Citizen Science opportunities.
- Participate in the pine rocklands "Connect to Protect Network" and get involved with the South Florida Conservation team on [work/study day](#), (and earn community-service hours) on offered by Fairchild's Center for Tropical Plant Conservation.
- Join others from throughout the county at the Baynanza Biscayne Bay Clean-Up Day, on a Saturday in April. See <http://www.miamidade.gov/derm/> for details.

IV. Checklist

- Your school's environmental initiatives address **home, school and community**, with clearly defined, stated outcomes and results.
- Two measurable initiatives, with data are included in video
- Remember to tap community resources and document your school's initiatives throughout the school year
- Review entry requirements before submitting one entry per school

V. Resources

Books:

Drake, Jane & Love, Ann. (1993). *Take Action, An environmental book for kids*. New York: World Wildlife Fund Canada.

Drutman, Ava D. & Zuckerman, Susan K. (1991). *Protecting Our Planet. Activities to motivate students to a better understanding of our environmental problems*. Carthage, IL: Good Apple.

Grafton, Allison & Levine, Shar. (1992). *Projects for a Healthy Planet. Simple*

environmental experiments for kids. New York: John Wiley & Sons, Inc.

Grant, Tim & Littlejohn, Gail. (Eds.). (2001). *Teaching About Climate Change. Cool schools tackle global warming*. Canada: New Society Publishers.

Lingelbach, Jenepher and Purcell, Lisa. (2002). *Hands-On Nature: Information and Activities for Exploring the Environment with Children*, Revised and Expanded Edition. Woodstock, VT: Vermont Institute of Natural Science.

Websites:

Fairchild Tropical Botanic Garden www.fairchildgarden.org

YouthCaN www.youthcanworld.org

NRDC Green Squad <http://www.nrdc.org/greensquad/default.htm>

Project Learning Tree Green Works! <http://www.plt.org/>

Green Schools Initiative www.greenschools.net

Green Education Foundation <http://www.greeneducationfoundation.org/>

Earth Force <http://www.earthforce.org/>

Environmental Protection Agency Student Center <http://www.epa.gov/students/>

Kids for Saving Earth http://www.kidsforsavingearth.org/index_low.html

School Energy Survey Questionnaire
<http://www.eia.doe.gov/kids/classactivities/SchoolBuildingSurveyIntermediate.pdf>

Children and Nature Network <http://www.childrenandnature.org/>

National Environmental Education Foundation <http://www.neefusa.org/>

Action for Nature www.actionfornature.org

Alliance to Save Energy <http://www.ase.org/>

Dream in Green <http://dreamingreen.org/>

Miami-Dade County Department of Environmental Resources Management
www.co.miami-dade.fl.us/derm