



**The Fairchild Challenge 2009-2010
How to Guide for Teachers**

Option 6: Interpretive Sign: Research Poster on Invasive Species

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I. Overview

The Research Poster challenge option is designed to get students to identify invasive exotic plant and animal species. Invasive species, or species which have been relocated outside of their natural area with no natural predators, are harmful to the ecology, economy and/or human health of the afflicted areas. South Florida has a large number of invasive species that quickly become acclimated to the sub-tropical environment, greatly affecting populations of native species by displacing or competing with them, including both flora and fauna.

II. Approaching the Option

1. Have students read over the [Florida invaders newspaper](#). Students can visit the following two websites to learn more about South Florida's growing list of invasive species.
 - a. [Center for Aquatic and Invasive Plants](#)
 - b. [USDA: Invasive Animal Species Info](#)
2. Have students use the following [worksheet](#) to assist them while they conduct their research.
3. Once they have selected one invasive plant and one invasive animal, they can begin creating their two-dimensional interpretive sign. As a reminder, **stand-alone/tri-fold posters will not be permitted.**
4. Hold a contest at your school to select the best two research posters to submit to the Fairchild Challenge.
5. Check for plagiarism! **Plagiarism will result in disqualification of all work submitted by the student(s) involved for the entire program year and all of their accumulated points will be nullified.**
 - Use [Fairchild Challenge's Guide to MLA](#)
 - Visit [The Owl at Purdue](#) for additional assistance regarding citation.
6. Submit a completed [Option 6 entry form](#) along with two research posters by 5:00 p.m. on Wednesday, February 24 to Fairchild Tropical Botanic Garden.

III. Incorporating Invasive Species in the Classroom:

Lead a discussion about the influx of invasive species since the start of "colonization" and exploration. Discuss different countries and ecosystems that have been affected by invasive species and the damages they have done to native species.

The following examples are provided as *suggestions*.

A. Math:

- Students can create a chart or graph on the population size of various invasive species. Have students use the data to compare the growth rates of other invasive species.
- Students can compare the growth rate of invasive species populations to native species populations.

B. Science:

- Learning about invasive species can correlate to many different lectures including: food webs, predator and prey interactions, keystone species, integrated pest management and succession to list a few.

C. Social Studies:

- The era of exploration can be considered the beginning of the invasive species problem. Snakes, rats, and various plants were accidentally transported on ships and introduced to new countries with very different ecosystems. Plants and animals of these new ecosystems were then captured and taken back as a trophy of their explorations.

D. Language Arts:

- Teach students to navigate web pages, conduct research, and properly cite information.
- Have students create an acrostic, cinquain or haiku poem highlighting one of their invasive species.

IV. **Sunshine State Benchmarks**

1. Health - A.1.3.5, B.2.3.1, B.2.3.2, B.2.3.3, C.1.3.2, C.1.3.3, C.2.3.1, C.2.3.4, C.2.3.5, C.2.3.6
2. Language Arts - A.1.3.1, A.1.3.2, A.1.3.3, A.1.3.4, A.2.3.1, A.2.3.2, A.2.3.3, A.2.3.5, A.2.3.6, A.2.3.7, A.2.3.8, B.1.3.1, B.1.3.2, B.1.3.3, B.2.3.1, B.2.3.2, B.2.3.3, B.2.3.4, D.1.3.1, D.1.3.3, D.2.3.1, D.2.3.2, D.2.3.3, D.2.3.4, D.2.3.5, D.2.3.6, D.2.3.7
3. Science - D.1.3.4, D.2.3.1, D.2.3.2, F.1.3.7, F.2.3.1, F.2.3.2, F.2.3.3, G.1.3.3, G.1.3.4, G.2.3.2, G.2.3.3, G.2.3.4

V. **Checklist**

- Completed an Option 6 entry form
- Submitted the school's best research posters (maximum of 2)
- Research posters are in portrait orientation and includes one invasive animal species and one invasive plant species
- Posters include a paragraph of no more than 250 words with the following information for each species:
 - Scientific name and common name
 - Where the species is found in South Florida
 - The species' region of origin
 - Reasons for introduction to Florida (e.g. cultural, economical, or ecological significance)
 - Impacts on ecology, economy, and human health
 - How it affects native species
 - Any present or potential actions taken to reduce the impact
- All sources are cited in MLA
- Bibliographies for all sources are displayed on the poster