

Weed Out!

Method

Students will plan and implement a strategy to manually remove invasive plants.

Getting Ready

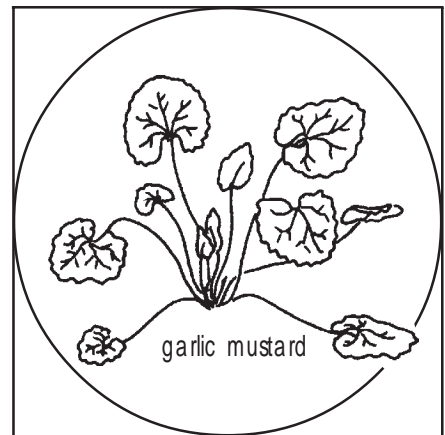
1. As you plan a control project, consider these things:
 - Age and abilities of the students.
 - Availability of appropriate tools.
 - Plant sensitivities. Be sure the plants you intend to control are safe (i.e., avoid plants that can cause rashes). Remember that some people are hypersensitive!
 - Safety of the site. Check out the site ahead of time to be sure there aren't any safety hazards (e.g., broken glass, garbage, poison ivy, hornet nests, etc.).
 - Preparedness of the students. Review how to dress for success (i.e., long pants, long sleeves, sturdy shoes, water bottles, sunscreen, mosquito repellent).
 - Tool/equipment safety. If you are using tools, be sure students know how to use them safely, when to wear safety glasses, and where to place tools when done.
 - Follow-up treatment. If an herbicide application is needed after cutting trees and shrubs, make arrangements for qualified adults to accomplish the task within the recommended time limits.
2. Read pages 11 – 14 of **Invasive Plants of the Upper Midwest** for information on general control considerations. Species-specific information is found throughout the book.

Introducing the Activity

This is the capstone activity! You've tracked down and identified invasive plants. You've collected, pressed, and documented. Now it's time for you and your students to get your hands dirty!

Doing the Activity

1. **Find a site to adopt.** Ideally, you would carry out this project in the area your class has been investigating. You have identified the invasives in this area. You have records of their populations and can monitor the effectiveness of your control methods.
2. **Decide if your project will be site-specific or species-specific.** In other words, you can choose to try to eliminate all the invasives in an area or to eliminate all the plants of a particular species. If this is your first project of this kind, you should probably concentrate on one species.



Objectives

- Research appropriate control measures for a local invasive plant.
- Participate in an invasive species removal project.

Grades

K – adult

Group Size

Small groups

Activity Time

Varies with project

Setting

Outdoors

Materials

Varies with project

Connections

See next page.

Academic Standards

Grades K – 4

- Environmental Education: D.4.1, D.4.6
- Science: B.4.1, F.4.2, F.4.3

Grades 5 – 8

- Environmental Education: B.8.10, D.8.5, D.8.6

Grades 9 – 12

- Environmental Education: D.12.5
- Science: H.12.5

Scout Connections

- Boy Scouts: Fish and Wildlife Management
- Brownie Girl Scouts: Earth Is Our Home
- Junior Girl Scouts: Eco-Action, Outdoors in the City
- Cadette and Senior Girl Scouts: Eco-Action, Wildlife

3. **Research.** Assign students to find out as much as they can about the plant/s in the area. What is the extent of the infestation? What are the recommended control measures? If you did the activity *Checking Out the Options* on pages 113 – 116, this step is already done.
4. **Plan a strategy.** As a class, decide which control method to use, what materials or tools you need, what time of year to conduct the control, and how often you should repeat the control measures. Don't be afraid to ask for help at this stage!
5. **Do it!** See ideas on page 123 for making the *work* more fun.
6. **Follow through.** Monitor the area as long as possible and schedule additional work days if necessary. Don't just monitor the invasive plants; investigate the impact your project has on other plants and animals at the site.

Assessing the Learning

Assess students' ability to work together to accomplish a common goal. Set age-appropriate expectations and criteria to help students monitor their own participation and behavior during the project.

Extending the Learning

Keep a classroom scrapbook. Detecting, preventing, controlling, and monitoring invasive species may have been a big part of your year! Now it's time to preserve the thoughts, findings, experiences, and memories in a classroom scrapbook. Together decide what your scrapbook will include. See a list of possibilities on page 124. Encourage each student or pair of students to select an idea, day, project, species, or some specific topic to develop. Set aside a day to invite parents and volunteers that have worked with you to unveil the class scrapbook. Be sure that students consider these things while designing their pages:

- Title each page with catchy words or phrases.
- Select photos, sketches, or other illustrations to accompany the themes of the pages.
- Include leaf rubbings, twigs, pressed flowers, or other natural items, if appropriate.
- Write notes, captions, and stories using complete sentences and correct grammar.
- Choose appropriate colors, borders, backgrounds, graphics, and lettering to help tell the stories.
- Use archival, acid-free papers, glues, and inks whenever possible.
- Store pages in sheet protectors or laminate to protect.

More than a Weed Pull

Students might need a little fun thrown into their invasive control project. Consider some of these ideas:

Tug a Suckle

Put a rope around the base of a honeysuckle shrub and have a tug of war with a plant! How many people does it take to yank the shrub out of the ground – roots and all? The tug-a-suckle rope is a one-half inch rope about 20 feet long. Tie a rock-climbing carabiner to one end and stagger knots throughout the rope for tuggers to hold onto. Wear gloves!

Pile Up the Plants

Divide into teams. Lay down a large tarp for each team. Which team has the biggest pile of invasives after 10 or 20 minutes of pulling? If laying down a tarp would damage desirable vegetation, count the number of full garbage bags per team.

Search and Destroy

(This technique works well with garlic mustard and other forbs that spread by seed.) Often there is a central area of infestation surrounded by isolated plants. Arm participants with flags or flagging tape. Form a search line and move through the survey area together. Each time students find invasive plants, they should destroy them and mark the spots with flags. The flags will allow your students to return to the area and watch for signs of regrowth.

Have a Contest

When pulling plants with taproots, have a contest to see who can pull out the longest intact root. Brainstorm other possible challenges (e.g., plant with the most flowers/seeds or tallest plant).

Acknowledge the Hidden Costs of Invasives Control

Count the number of mosquito bites or scratches after a pulling party. Give the winner a certificate or simple prize.

Sing with the Buckthorn Busters

Join the Buckthorn Busters in their marching chant. Sung to the tune of *This Old Man*.

Buckthorn scum! Buckthorn Scum!
We will get you one by one
With a knick knack, paddy whack
Pull it from the ground
Buckthorn Busters comin' 'round.

Create Art

See the activity *Inspired by Wrath* on pages 125 – 132. Use invasive plants to dye fabric, make notecards, create necklaces, or weave baskets.

Design T-shirts

Hold a contest and pick a winning weedy design. Have the T-shirts printed to help spread the word about your class project.

Sponsor a Pull-A-Thon

Gather pledges for each stem, pound, or bag of invasive plants pulled. Use the pledge money to revegetate an area with native plants.

Scrapbooking Ideas

Classroom scrapbooks can take off in many directions. Decide together if you want to include a wide variety of subjects or narrow your focus to one subject. Scrapbooks kept in the classroom become a record of activities, progress, and changes that can provide insight to future students.

Science

- Track natives. Students can keep records of all the native plants they see at the site each year. Include photos of newly discovered species.
- Snap photopoints. Set up a series of posts at strategic points in your study area. On a seasonal or annual basis, take reference pictures from the posts. Try to use the same camera and lens each time. By maintaining a regular interval at a specified angle, you will gain incredible insight into how the area is growing and changing. You will also see how your control efforts have helped a piece of land.
- Record the invasive plants and their abundance.
- Record phenology. Include a log or calendar in the scrapbook and encourage students to record seasonal happenings such as wildlife sightings, blooming flowers, and weather events. Compare the recordings from year to year. See *Eyewitness Accounts* on page 85 for more information.

Language Arts

- Write short stories and poems that reflect on the project or describe what students have learned about invasive species.
- Archive newspaper articles that feature your class and your invasive species control work.

Fine Arts

In addition to making each page aesthetically pleasing, encourage students to:

- Snap candid and scenic photos.
- Write music and lyrics.
- Draw or sketch plants, animals, or people in action.
- Make leaf rubbings.
- Press flowers.
- Make your own paper to use in the scrapbook.

Math

Find creative ways to share numbers.

- Record data collected during plant transects. See *Diversity Index* on page 99 for more information.
- Track the number of volunteer hours that students spent controlling invasive species.
- Count how many bags or pounds of invasives students removed.

Social Studies

- Create maps that show the locations of rare plants or areas where invasive plants were removed.
- Take “before and after” photos of all projects.
- Capture action shots of students and other volunteers at work and at play.