

# Lesson 6: Time to Act!

Students make a positive impact in their community through implementing an invasive species management project.



## Intended Audience

Middle School

## Students Will Be Able To

- Plan and implement a project
- Collaborate with peers to achieve a common goal
- Identify positive impacts they can have on their community

## Activities

- Select a project
- Design the project
- Implement the project
- Review activity:
  - Write a reflection letter

## Estimated Time

3.5 classes

*Varies by project*

## Standards Addressed

- | NGSS        | Common Core |
|-------------|-------------|
| • MS-ETS1-1 | • SL.6-8.1  |
| • MS-ESS3-3 |             |
| • MS-LS2-5  |             |

## Introduction

The data your students collect using the “WA Invasives” app informs research and action plans for invasive species professionals. In this lesson, students take their data one step further and use it to help them design and execute their own stewardship project. Stewardship projects can vary in complexity, from something as simple as writing a letter to something a bit more involved such as pulling invasive species at a local park. No matter what you choose to do, remember, everything your class does makes a difference.

## Materials

- Optional:
  - [Logic Model](#)
  - [Example Logic Model](#)
  - [Invasive Species Reporting Sign Template](#)
  - [Example Invasive Species Reporting Sign](#)

## Preparation

1) Read the **Teacher Notes** to familiarize yourself with invasive species. It is also ideal for students to have an understanding of what an invasive species is prior to this activity. You can use our PowerPoint presentation from **Lesson 1: What is an Invasive Species?**

TED-Ed also has two introductory videos for a brief alternative introduction or review:

“The Threat of Invasive Species”:

[https://youtu.be/spTWwqVP\\_2s](https://youtu.be/spTWwqVP_2s) (4:45)

“Attack of the Killer Algae”:

<https://youtu.be/Vd4rgN6MYtg> (3:23)

2) If time or your students’ abilities do not allow for them to design their own stewardship project, you can choose an activity. If you need help, try contacting a local environmental group to coordinate a stewardship project for your class. There are multiple contacts for support for project partners on the Resources page who may be able to provide time, tools, and expertise.



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Here are a few project ideas:

- Community or school presentation on invasive species (Ex: “What is an Invasive Species?”; “What Invasive Species are in Our Community”; “How to Stop the Spread of Invasive Species”)
- Invite a guest speaker to teach your school about invasive species
- Write a letter to your principal, groundskeeper, or local government about the invasive species problem on your school ground or in your community and offer potential solutions
- Design and distribute signs to plant nurseries about the dangers of invasive plants and alternative plants gardeners can use
  - Note:** *If your students are bi-lingual, encourage them to make a copy in their non-English language as well as English. This way they can reach even wider audience and will help them consider this tactic when making outreach materials in the future.*
- Design a control plan for an invasive species on your schoolyard
- Pull invasive plants
- Plant native plants
- Install and monitor insect traps for invasive species (partner with WSDA)
- Install boot cleaning station at local park

Otherwise, work through the lesson plan with your students to guide them through the process of designing their own project.

As your class plans its project, keep in mind what kind of permission you need to complete a project. For example, your class cannot go to a national park and start pulling weeds or go to a local plant nursery and post fliers without permission.

## Procedure

### Class 1

#### **Introduction (10 min.)**

Define or re-define **invasive species** with the class. If you have completed previous lessons, you can have students mention key points they remember. In past lessons, your students collected invasive species data. Ask your students what happened to the data they collected. *The data your students collect using the “WA Invasives” app is verified by professionals and helps those professionals track invasive species’ spread, plan management projects, and prevent outbreaks of new invasive species.*

Ask your students if they think only invasive species professionals can help manage invasive species. If they say, “Yes,” explain that they don’t need to leave it up to the specialists to act upon their data. They can take action too! In fact, by making reports, they have already started to help combat invasive species.

Tell your students that they will be working together to do an invasive species stewardship project. **Stewardship** is the act of taking care of something. Ask your students for examples of some of the things they help take care of, such as a pet or a younger sibling. Explain how with this project, students will be taking care of their community by managing for invasive species. Using their data and invasive species knowledge, they will design and act upon a plan to manage an invasive species of their choice.

#### **Choose a Project (30 minutes)**

If the top-scoring project from **Lesson 5: Invasive Species Presentation** is feasible, start planning how to implement it as a class. If not, work with your students to select an invasive species management project you can do with the resources you have. Remind them that no idea is

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too small- everything we do makes a difference.

These questions may help prompt some ideas:

- When we conducted our survey, which invasive species was having the biggest negative impact in our community?
- Is there a certain invasive species that interests you the most?
- What kind of invasive species (plant, animal, or disease) do you want to manage for?
- What kind of work do you want to do (e.g., work outside, teach, design educational materials)?
- Where do you want to do a project (e.g., at school, in the community, nationally)?
- What kind of resources do we have available?

You can also refer back to the list of project ideas in the **Preparation** section of this lesson if your students are having trouble coming up with a project. You can present them with a few options and have them vote as a class on which they want to pursue.



## Class 2

### Plan Your Project (45 minutes)

Once you decide upon your project, then you need to start planning the details. You can brainstorm as a class, or you can break the class into groups and have each group plan a portion of the project. **Things to consider:**

#### Resources

- What are the different ways to manage this

invasive species?

- What resources do we need to be successful? Where can we get these resources?  
*For example: tools, money, plants, traps, poster board, etc.*
- Do we need help from any community partners? If so, how will you contact them?
- Do you need any extra volunteers? If so, how will you recruit them?
- How long will this project take?
- When will we do this project?  
*After school or during school? Does our project need to happen during a certain time of the year, such as planting native plants?*
- Where are we doing our project?
- Do we need special permission to do this project? If so, who can grant us that permission?

#### Activities

- What steps do we need to take to achieve our goal?  
*For example: gathering supplies, recruiting volunteers, getting permission to do the project, etc.*
- Will your project require long-term monitoring? If so, who will monitor it?  
*For example: who will plant native plants in a patch on your schoolyard after you remove the invasive plants? Who will water any plants you install?*

#### Outputs/Goals

- What are our project goals? What positive impacts will your work have?  
*For example: How much scotchbroom do we want to pull? How many insect monitoring traps do we want to install? How many people do you want to teach about butterfly bush?*
- What are some problems you might run into doing this project? What can you do to prevent them?



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Older students might find a logic model helpful to organize their thoughts. A template is provided with this lesson plan. For younger students, you may need to go over these different categories together as a class and write their ideas on the board.

Go over your students' plan together. Revise the plan as need be so the class can accomplish it in the time you have available.

*Again, if this level of planning seems like too much for your class, contacting a local environmental group is a good route. They will have projects your students can help with but not need to maintain and they often have all the necessary tools for the job. See the **Resources** page to find an environmental group in your area.*

## **Class 3 (Varies upon complexity)**

### **Implement Your Project**

Follow your plan and adapt as needed. If you run into large obstacles, explain to students that things don't always go to plan and that they now get to be creative and come up with a solution.

## **Review**

### **Class 4**

This can be done in class or be assigned as a homework activity (20 minutes).

Have students write a letter to a friend or family member about their stewardship project. They should include the following information:

- Describe your project.
- Why did you choose this project?
- How did it go?
- What was your favorite part?
- What would you do differently?
- Are there any other environmental or community projects you want to get involved with now?
- Add a picture or a drawing of your project

After you grade them, encourage student to send their letters. It will help them inform another person about the invasive species issue and can keep students thinking about what they learned. It will also be a good opportunity for most of them to learn how to address an envelope!

### **Potential Grants/Funding sources**

- Contact local businesses, especially banks, they often have small grants for community projects
- Contact local environmental groups, they occasionally get grants for community projects
- Donors Choose: <https://www.donorschoose.org/>  
*Fundraising site for teachers*
- Project Learning Tree GreenWorks! Grants: <https://www.plt.org/resources/greenworks-grants/>