

## **Rain Garden Installation**

**ESTIMATED TIME:** 45 minutes

### **OBJECTIVES:**

Students will be able to:

- understand how to manage stormwater runoff by the use of rain gardens
- increase their environmental awareness
- be motivated to teach others in their communities about the importance of rain gardens and how rain gardens can serve as one of the solutions to water resources issues in New Jersey

### **MATERIALS:**

- Computer and projector
- "Rain Garden Installation" PowerPoint Presentation
- Photographs of rain garden excavation/installation thus far
- Gloves
- Hand Trowel
- Flat Garden Gnome attached to wooden stake
- Homework (Video Questions) for each student to complete prior to the "Rain Garden Community Presentations" module

### **PROCEDURE:**

#### **Part 1: Pre-Test**

***Estimated Time:*** 5 minutes

#### ***Preparation:***

1. Prepare the Stormwater Management in Your Schoolyard journal for each student to complete for this module (Before Lesson and After Lesson).

#### ***Directions:***

1. Distribute a pencil and a Stormwater Management in Your Schoolyard journal to each student.
2. Read the questions on the "Before Lesson" page and have the students complete.
3. Have the students hold onto their pencil and Stormwater Management in Your Schoolyard journal until the end of the module.

#### **Part 2: Rain Garden Installation Overview**

***Estimated Time:*** 10 minutes

#### ***Preparation:***

1. Connect the computer to a projector and set up the screen.

2. Load the "Rain Garden Installation" PowerPoint on the computer.

***Directions:***

1. Go through the "Rain Garden Installation" PowerPoint Presentation with the class. Be sure to discuss the following steps of a typical rain garden installation:
  - a. Removing existing grass
  - b. Excavating to the desired elevation and grade
  - c. Adding soil amendments
  - d. Preparing the berm
  - e. Preparing the overflow
  - f. Leveling the base area
  - g. Applying the mulch
  - h. Planting the native plants
  - i. Watering the native plants
2. While showing photographs of the rain garden excavation/installation, go over how the school's rain garden(s) was excavated prior to the students planting the rain garden(s). Explain the excavation/installation steps for the school's particular rain garden(s) installation.

**Part 3: Rain Garden Installation**

***Estimated Time:*** 25 minutes

***Preparation:***

1. Have students prepare to go outside and help with the installation of their school's rain garden.
2. Split students into groups and pre-assign tasks to each group.

***Directions:***

1. Discuss with the students how they will be going outside shortly to plant in the rain garden(s). Discuss the proper behavior for acting outside.
2. While outside, discuss the parts of the rain garden and the plants selected for the rain garden(s). Involve the students with the rain garden(s) planting by demonstrating how to plant.
3. Provide the students with gloves and hand trowels and have them plant the plants in the rain garden(s). While this is occurring, walk around to make sure the students are planting correctly.
4. If desired, take photographs of the students while they are planting. At the end of planting, take a class photograph next to the rain garden(s).
5. Have a Flat Garden Gnome "moving in" ceremony. Discuss with the students how the Flat Garden Gnome has traveled all throughout the Cooper River watershed. Discuss how the gnome has visited with each student and has observed different types of nonpoint source pollution and solutions to the different types of nonpoint source pollution. Explain to the students how the gnome will now move in and live within the rain garden(s) and will help take care of the rain garden(s). Emphasize how the gnome cannot take care of the rain garden(s) all by himself, so he will need the help of the students to make

sure that the rain garden(s) is being taken care of properly. Introduce some of the rain garden maintenance measures such as watering and weeding.

**Part 4: Putting it All Together and Post-Test**

***Estimated Time:*** 5 minutes

***Preparation:***

1. Prepare the Stormwater Management in Your Schoolyard journal for each student to complete for this module (Before Lesson and After Lesson).
2. Prepare a video question for each student to complete answer for the “Rain Garden Community Presentations” module.

***Directions:***

1. Moderate a brief class discussion to help pull the module content together. Ask the students the following questions:
  - a. What did you think of the rain garden installation at your school?
  - b. What was your favorite part? Least favorite part?
  - c. Do you think you will install a rain garden at your home too?
2. Ask the students to answer the prompt in their journal.
3. Explain that in the next module (“Rain Garden Community Presentations”), each student will need to answer a question assigned to them from their teacher. Refer to the “Homework – Video Questions” document for instructions and further information.