

# Van Derveer Elementary School

51 Union Avenue Somerville, New Jersey 08876



## Rain Garden Curriculum



Photo by: Heather Barrett Assistant Watershed Protection Specialist NJ Water Supply Authority  
Location: Van Derveer Elementary School Yard Rain Garden  
Cover by: Ingrid Witty Rutgers Environmental Steward

# *Van Derveer Rain Garden Curriculum*

Modified for Grades 4 – 5

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## **BACKGROUND:**

The *Van Derveer Rain Garden Curriculum* is an educational program designed to provide fourth and/or fifth grade students with an opportunity to apply their science, math, and communication skills to real-world environmental problems through rain gardens found on the school's campus.

The main focus of the *Van Derveer Rain Garden Curriculum* is rain gardens. However, topics such as watershed, stormwater, soil, and plant ecology are presented, and connections between these topics and rain gardens are introduced and discussed with the students.

## **LEARNING GOALS:**

- Students will understand what a watershed is and how we all live in a watershed.
- Students will understand nonpoint source pollution.
- Students will understand stormwater runoff and how it transports nonpoint source pollution to local waterways and affects the health of watersheds.
- Students will understand how to manage stormwater runoff in multiple ways, including the use of rain gardens.
- Students will increase their environmental awareness.
- Students will be motivated to teach others about the importance of rain gardens and how rain gardens can serve as one of the solutions to water resources issues in New Jersey.

*Source for Introduction Background and learning goals: Rutgers Water Resources Program "Stormwater in Your School Yard" program.*



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### **CURRICULUM OUTLINE:**

#### **1. An Introduction to Watersheds**

- a. Using laminated Maps from the Peters Brook watershed students will be introduced to what a watershed is.
- b. While working in groups, students will understand how streams in a watershed are connected by creating a living stream system from the top of the watershed to the bottom of the watershed.

#### **2. Stormwater Runoff and Nonpoint Source Pollution in Watersheds**

- a. Using the school yard storm drain pictures, students will be introduced to what is stormwater runoff, and nonpoint source pollution.
- b. While working in groups, students will make a storm drain in order to identify possible nonpoint source pollutants found in storm water.

#### **3. Van Derveer School Rain Gardens**

- a. Using the Van Derveer school rain gardens as examples, students will understand what a rain garden is, how the schools' rain gardens help improve the water quality in the Peters Brook watershed.
- b. Students will learn how their rain gardens capture stormwater runoff from the schools' roof.
- a. Using the Van Derveer Rain Garden Poster students identify sections of a rain garden, and how important it is for the rain garden plants to be planted in the proper home.

#### **4. Van Derveer School Rain Gardens Soil Identification**

- a. Using the Van Derveer rain gardens as an example, students will understand the importance of soil percolation in the schools gardens.
- c. While working in groups, students identify their school yard soil type by conducting a soil test by sedimentation.

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### **5. Rain Garden Native Plant Considerations**

- a.** Using Van Derveer Schools' Rain Gardens plant list as examples, discuss New Jersey native plants that can be planted in rain gardens, and how plants help nature
- b.** While working in groups, students understand the role of plants in filtering the water in the school yard rain gardens.

### **6. Van Derveer Rain Gardens Maintenance**

- a.** Students will discuss and understand the process of maintaining the Van Derveer rain gardens.
- b.** While working in groups students will become familiar with some of the most common rain garden weeds.

