



## Greater Des Moines Botanical Garden

Exploring, explaining and celebrating the world of plants

### Addressed Learning Standards

#### Wonders of Water

Water is important for every living thing! Dive into the world of water and learn what water is made of, how valuable the finite resource is and ways the living world uses it. Students will use their investigative skills and test different water samples including the Des Moines River, the Botanical Water Garden and tap water. Schools can also bring their own water sample to test. After the water tests, students will create a filter using natural materials to remove sediment and other debris from water.

*This program is seasonally offered during the months of September - November and March - May.*

**Grade Level:**

Middle – High School

**Format:**

Lab

**Subjects:**

Natural Science  
Science Inquiry  
Experimentation  
Environmental Science  
Biology

#### Next Generation Science Standards:

**MS-LS2-5**

Evaluate competing design solutions for maintaining biodiversity and ecosystem services.

**MS-ESS3-3**

Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

**MS-ETS1-1**

Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

**HS-LS2-7**

Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

**HS-ESS3-1**

Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.

#### Iowa Core:

Geography

**SS.6-8.G.4**

Understand how physical processes and human actions modify the environment and how the environment affects humans.

**SS.9-12.G.5**

Understand how human actions modify the environment and how the environment affects humans.