

Making a Splash

in the
Lena Meijer Children's Garden



Teacher Packet





Wetlands support many life-forms.



Animals require water.



People enjoy water sports.



Plants need water too.

Overview:

Students will visit areas of the Lena Meijer Children's Garden and learn about the value of water to all living things. They will see how water exists as a solid, a liquid, and a gas. They will see evidence of the water cycle and the varied pathways that water takes while recycling.

The Children's Garden is ADA compliant.

Main Concepts:

- Every living thing depends on water.
- All the water on earth recycles.
- It is important to conserve water.
- People enjoy water sports activities.

Benchmarks:

Science V. Use Scientific Knowledge from Earth Sciences
Standard 2. All students will learn characteristics of water and how water exists in the hydrosphere.

EE 1. Describe how water exists in three states.

Show real world context examples.

EE 2. Trace the path that rainwater follows after it falls.

Show real world context. View example of water flowing naturally.

EE 3 Identify sources of drinking water.

EE 4 Describe uses of water.

Activities:

At the Education Station students will conduct experiments with the three states of water. Using the concept of weather and its impact on our environment, students will play a matching game and answer water riddles. Students will use scenario card sets to demonstrate the varied pathways that water takes to be recycled and reused.

At the Great Lakes students will review the water cycle, learn what a valuable resource water is to Michigan and the importance of water activities to the tourism industry. Everyone will use a sailboat to race in the Great Lakes. Students will see a demonstration for a typical working water tower and discover how it works.

At the Lena Meijer Children's Garden wetland students will learn why species such as frogs, turtles and fish call this habitat home. They will have an opportunity to view pond life under microscopes. They will explore the Lakeshore magnetic wall where they will select a bird, insect, or animal magnet and place it in an appropriate environment. They must be ready to explain to others why they decided this would be a good place for the animal or bird. Lastly they have an opportunity to fill watering cans and sprinkle flowers growing nearby.

Classroom Activities

- Water Tower lookout (attached) – Give students a week to search for and sketch water towers. Get parents on board by suggesting it as a good backseat car game. When they have found a water tower and sketched it, have students write at the bottom of the drawing the main street intersections nearest the tower. If they have cameras available to them they could even snap an image and then sketch it. Display the tower drawings in the classroom and take fifteen minutes to let the class talk about what they found. Ask how many found towers that were located high on a hill. Why would that be important in how a tower works?
- Build Your Own Water Cycle--Ask each student to bring in a two-liter plastic soda bottle. Gather the following materials and equipment: package of lima bean seeds, potting soil, spray bottles. You may wish to invite a few volunteers to assist with this project.

Tell students that each will make their own water cycle. Ask these questions: What is the water cycle? What are clouds? What are clouds made of? Why does it rain? Where does rain go after it falls? Introduce the words: evaporation, precipitation, and condensation.

Help each student put about 1 inch of soil into the bottom of his/her bottle, drop in one bean seed, and then add another ½ inch of soil. Using the spray bottle(s), give the soil a thorough soaking. Replace the cap. This should be all the watering needed because you have created a closed environment. Include a bottle terrarium that does not have a cap on it. Put names on the bottles with a permanent marker and then set them in a sunny window. Be sure that there is not so much sun that the plants wilt!

Observe and discuss what is happening to the plants. Compare this to the bottle without a cap. Why is the soil still wet? Do you think any water has evaporated from the soil? Did it ever rain in your terrarium? How is this like the rain in our world and water in our soil?

Make a quick sketch of four water towers that you see. Write down two main streets near each.
