Nellie B. Chisholm Middle School

Learning by Doing and Serving the Community

Community Partners

- Montague United Methodist Church
- Jon Lipka, Lipka Inc.
- Brent Wolffis, Thompson Brothers Excavating
- Weesies Brothers Garden Centers
- RCP Marketing

Becoming environmental forerunners !

West Michigan Great Lakes Stewardship Initiative

Student Learning Outcomes

Students learn how to reduce storm water pollutants such as salts, fertilizers, sediment, and hydrocarbons by reducing turf and creating a sustainable landscape.

Students research, develop, publish, and disseminate information to the community about the effects storm water runoff into nearby waters through the project at the church by encouraging the use of native plants to address both storm water issues and pollinator decline.

Students compare and contrast turf to native plant species. They decide that turf needs to be reduced because it requires a lot of water, fertilizer, and mowing.

Technology skills are used to create a PowerPoint that explains why turf grass should be reduced, and it highlights environmentally friendly alternatives to turf.

Students research pollinator plants further and begin mapping and planning for a garden. They pay special attention to plant height, color, bloom time, and drought resistance.

Pollinator populations are studied, and students write about reasons for the decline of pollinators such as habitat loss, pesticide use , and disease.

Appropriate native plants are chosen for the garden, and students work with a sign company to design a sign for the garden to teach the community about pollinators and turf reduction.

Research is done to find ways to deter deer in the area where the garden would be planted. Students learn about recycled bottles that contain blood meal to keep the deer away.

Planting day gave students an opportunity to use what they learn in the classroom.

Using teamwork, the group of sixth graders plants over 400 plants in under two hours.

A member of the church congregation contacts the school the next day with their first pollinator sighting.

Nellie B. Chisholm Middle School
2013 - 14
School Year Team:

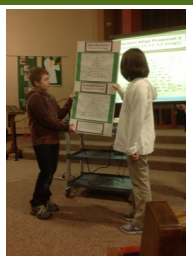
- **57 Students**
- **1 Teacher**
- **2 Classrooms**

A **pollinator garden** is intended for bees, birds, hummingbirds, butterflies, and moths. It includes native wildflowers that attract different pollinators and provide nectar and pollen. Flowers should be chosen to bloom continually from early spring to fall. Clustering plants helps pollinators find the plants they need and save energy because of a shorter distance to travel.

2013-2014 School Year Project Timeline

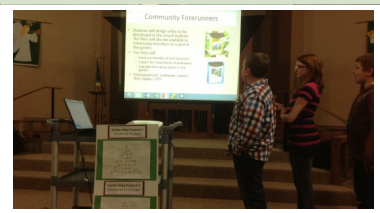
October — Students learn about run-off and turf reduction from Julie Batty, Muskegon Conservation District, and Dennis Donahue, NOAA

December — Create PowerPoint and present turf reduction options to church



January — Create second PowerPoint with pollinator garden proposal to the church board

March — Design a sign for the garden and create an insert for the church bulletin



April — Redesign garden in new location to accommodate new church parking lot

May — Begin turf removal process, spread compost, add mulch, post sign

May — Learn planting techniques in classroom setting

June — Plant garden

June — First pollinator sighting in garden

Skills learned:

- Effects of Stormwater Run-Off
- Benefits of Turf Reduction
- Pollinator Plant Studies
- Garden Planning and Mapping
- Sign Design
- PowerPoint and Presentation Skills
- Article Writing for Local Newspaper

Nellie B. Chisholm Middle School , June 2014