Entry (ID 341)

Project Coordinator Contact Information

Name:	Jane Gardner
Title:	Science Instructor
Qualifications:	Instructor and naturalist at Discover Outdoors Nature Center for 12 years. BS degree in outdoor education, minor in environmental studies
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Organization Information

Administrator signing on behalf of the organization:	John Greenlove

Organization Name:	Discover Outdoors Nature Center
Year organization was founded:	1985
Address	1234 Oak Tree Drive N/A Woodland, MI 49000
Phone:	(616) 906 4100
Website/URL	https://www.Discoveroutdoors.org
List any partner organizations that are involved:	Woodland Conservation District National Wildlife Federation Woodland Landscape Supply

Project Description

Timeline of the project:	This habitat garden will be planted in spring of next year with native perennials and shrubs. Then we will install educational signs soon after, which we will purchase with the NWF grant money. Beginning next summer, this site will become a demonstration garden for students and visitors and serve as an example of what they can create on their own properties.
Project Address	1234 Oak Tree Drive N/A Woodland, MI 49000

Grant amount requested:	$500
Total project budget and breakdown:	$300 - Grant money received from National Wildlife Federation (NWF) will be used to purchase sturdy, weather-resistant educational signage for the habitat garden explaining its purpose and benefits, along with labels for each plant listing both its common and botanical names. $100 - Donation from the Woodland Conservation League to help purchase additional native plants. $500 - Plant It Forward grant money (if received) will be used next spring to purchase native perennials and shrubs for the habitat garden. These will be planted in early June by the students who attend programs at this facility.
Describe how potential Grant monies will be utilized:	This fall, the project site will be prepared by cutting down the existing grass and weeds and layering the area to be planted (see the 25' x 20' garden perimeter drawn in the photo of the Nature Center) with recycled cardboard and 3" of shredded hardwood mulch, which was donated to us by a local landscape supply company. This "smothering" method will help kill the existing vegetation without the use of herbicides. Staff and students will collect and place fallen limbs to create a border for a pathway through the garden. Native plant species will be purchased for planting next spring from local native growers found on the Native Plant Guild website (nativeplantguild.com). Perennials will be in either plug or quart-sized pots. Shrubs/trees will most likely be gallon size or slightly larger, as these are more economical sizes. The students chose perennial species that would provide blooms for nectar and pollen from early spring to late fall.
Will you be receiving financial support from other sources, if so, what are they:	Educational signs will be purchased with a $300 grant we received from the National Wildlife Federation this past spring. Garden tools and supplies will be supplied by the nature center's educational fund. As this garden develops and becomes established, we hope to expand its size. For this "phase 2" we will look for further funding sources at some point in the future.

If present Project Coordinator leaves, how will the project be sustained:

The Director of Discover Outdoors Nature Center is developing a learning curriculum around this garden. He will ensure that capable leaders will continue to maintain and expand the garden so that the site is utilized for its intended purpose. There are so many lessons that could be learned in a garden like this throughout the year, including winter, as we plan to leave plants standing until late spring to provide food for wildlife and for winter interest (and art inspiration)!

List organizations or individuals who will provide technical support for the implementation and/or maintenance:

We are working with a local native landscape designer who has helped guide the students in an appropriate planting plan for the site. Also, two of the naturalists at this facility have experience with native gardening and are enthusiastic educators on the subject. Maintenance for the habitat garden will come from our students (grades 5-8) under the direction of staff. This includes the summer months when students are enrolled in our various nature education camps.

Educational Use of Area

Who was involved in the project design:

The initial concept of a habitat garden was developed by our Director (John Greenlove) and me (Jane Gardner). We were inspired to create this educational tool after attending a professional conference on outdoor classrooms. We discussed the idea with the other naturalists who work here. All were on board with the concept, and we discussed the many possibilities for its use.

The garden's actual design came from our students. It was based on input and advice from the garden designer, who met with them in the spring of this year to discuss design strategies (see attached drawing, including garden dimensions, and a photo of the school site where it will be created).

The older students drew potential designs for the habitat garden and researched suitable plants for the site conditions. We chose the best aspects of each design to develop the final plan. The younger students used this information to discuss what a habitat means and what elements are a part of one. They also created art based on the plant species suggestions, connecting them to the various wildlife and pollinators that used them.

Nature Center educators and parent volunteers researched potential grant sources, determined budgets for the 1st phase of the project, and reached out to local partners for donations of goods or services.

What is the goal of the project and who will benefit:

This is an educational institution, hence all we do revolves around learning, with a focus on nature. The goal of this garden will be to provide our students hands-on, feet-on-the-ground experiential lessons in the cycles of life, biodiversity, horticulture, insects, birds, soil structure, climate, math, science, art—even social studies.

Observational studies will provide ample opportunities for report writing and creative thought.

Once established, the garden will allow the students to learn about and collect seeds to grow out to plant in other areas of the property, or to potentially package and sell or gift to the public.

The local 5th-8th-grade students who attend our programs will be the primary benefactors of the habitat garden as they will be involved in all aspects of its development, continued growth, and care. They will involve their family members and visitors during future garden showcase events. This project will also enhance the property's educational outreach by providing instructors with another means of introducing curriculum subjects.

The site chosen for this garden will be on the facility grounds, near the entrance to the nature center, where it is easily visible to the public and students. Some erosion is occurring in this location, so the plants will help mitigate this issue while also eliminating the lawn and providing habitat. The signage we plan to include will add educational value.

If project is school related, how will the site be used across curricular areas:

Science - plant structure, root development, insect connections, species identification, seed dispersal methods, soil layers, development, and microbes. Water cycles, growth rates, leaf/flower shapes, etc.
Math - measurements for garden layout, plant spacing, tracking plant growth rates, seed counting, meteorology, estimating, shape patterns, metamorphosis, and much more!
Art - observational drawing, creative writing, garden design, using plants to make art, learning plant nomenclature, nature journaling, seed art, etc.

Describe the educational features that will be included:

Informational signs will depict plant species and discuss the concept of a habitat garden. Pathways and sitting areas will be included in the garden for access and observation points.
Diverse perennials and groundcovers, berry-producing shrubs, an evergreen tree, a small brush pile, and a birdbath will provide food, water, and shelter for wildlife. We hope to add a bluebird house and a bee hotel. A parent will be coming in to talk about the design and purpose of these and will donate them to the garden.

Plant Species and Sources

Native Plant List:

Trees & Shrubs:
Red Cedar (Juniperus virginiana) - 2
Shrubby St John's Wort (Hypericum prolificum) - 1
Black Chokeberry (Aronia melanocarpa) - 1
Witch Hazel (Hamamelis virginiana) - 1

Perennials: we hope to purchase 3-5 of each species

Spring Blooming -
Wild Columbine (Aquilegia canadensis)
Pussy Toes (Antennaria plantaginifolia)
Prairie Smoke (Geum triflorum)
Wild Strawberry (Fragaria virginiana)

Summer Blooming -
Smooth Penstemon (Penstemon digitalis)
Butterfly Milkweed (Asclepias tuberosa)
Rough Blazing Star (Liatris aspera)
Rose Milkweed (Asclepias incarnata)

Fall Blooming -
Prairie Dropseed Grasss (Sporobolus heterolepis)
Sky Blue Aster - (Smphyotrichum oolentangiense)
Blue-Stemmed Goldenrod (Solidago caesia)
Showy Coneflower (Rudbeckia fulgida)

Describe how this plant list was determined:

The students researched native plants favored by pollinators via several websites from MSU, Wild Ones, and National Wildlife Federation:
https://www.canr.msu.edu/nativeplants/plant_facts/local_info
https://wildones.org/
https://nativeplantfinder.nwf.org/

Books we used include:
Nature's Best Hope - Young Readers Addition by Doug Tallamy

Project Design

Please provide a sketch or scaled design of the project and/or a map of the project site (photos would be helpful as well).

Discover-Outside-Nature-Center-Photo-1.jpg

Habitat-Garden-Design.jpg

If the project will include signage, show how they will appear or be used, their source and dimensions:

We are looking at various options for the primary interpretive sign - keeping our budget in mind.
Organizations such as the Wildflower Association of Michigan and Monarch Venture have nice examples (see attachment), but if we can afford a more detailed sign, we will go that route. We also want to have signs for the individual plant species. A Michigan Master Gardener in Genesee County creates the weather-proof plant ID labels (www.geneseecountymg.org) - the attached photo shows an image of them from the website, but our species would be Michigan native species. We would order 16 of these signs, one for each of the species shown in the plan. These plant labels cost $8 each and are 5" x 4" on an 18" stake.

Please upload your signage file below.

Pollinator-Sign-Options.docx.pdf

Plant-ID-Labels.png