**Pollinators Module 2**

**Driving Question(s):**

* How can we attract pollinators?
* What types of pollinators can we attract?
* How can we help pollinators?
* What do pollinators need to survive?

**Overview:**

This activity should help students learn how to attract pollinators, and design their own pollinator-friendly habitat.

**Major Products & Performances:**

* Science notebook
* Garden design
* Field trip to botanical garden/pollinator garden

**Teacher Background:**

Bees, bumblebees, butterflies, moths, flies, beetles, and bats are important pollinators. Bees and bumbles are declining due to pesticide use and habitat destruction. This directly impacts agricultural economy. Most elementary students do not know that bees and other pollinators are the reason that we are able to enjoy fruits, such as apples, blueberries, and melons as well as cucumbers and squash. We all can help by providing pollinator habitat and avoiding the use of pesticides. For example, Monarch butterflies need to migrate in fall to Mexico, so schools across our nation can be especially helpful by providing habitat so these butterflies have a continuous migration route. Milkweed is also necessary for the monarchs in order for them to complete their lifecycle during the summer.

The Natural Resource Conservation Service of the USDA provides excellent background material http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/pollinate/ relative to the driving questions for this unit. Schools can attract pollinators by planting gardens and landscape with flowering plants (annual and perennial flowers, herbs, shrubs/bushes, and small trees) that provide nectar to pollinators. In turn, these pollinators will also help to boost any garden crops that you are growing. To provide a continual pollen food source throughout the summer, plant a sequence that will flower at different times of the summer. You could direct seed “wildflower” mixes for your area, or you could be more strategic and research a sequence that would bloom May through October for your area (see http://www.nrcs.usda.gov/Internet/FSE\_PLANTMATERIALS/publications/nypmctn11164.pdf ) An example sequence of flowering plants with generally high pollinator value follows that also will support the Monarch Butterfly lifecycle follows:

 •May – June/July: Indigo, Ohio Spiderwort

•June-July/August: Cardinal Flower, Coreopsis, Wild Bergamot, Butterfly Weed

•July-August/Sept: Giant Hyssop, Swamp and Common Milkweed, Joe Pye Weed

•July-October: Coneflowers

•August-Oct: Blue Aster