



Monarch Recovery Garden Model

ADAPTED FROM NATIONAL WILDLIFE FEDERATION'S *MONARCH MISSION*, PK-5 EDITION, GRADES K-2 ACTIVITY 3

Investigating Question: How can I design a model habitat suitable for monarch butterfly?

WHAT TO DO

1. In preparation for making, designing, and planning a monarch recovery garden model, have the following discussion with your children.

How would you feel if one of our friends in the neighborhood left? What if one of your friends left every week? What would happen after a while? (There'd be no more children/friends.) What would you want to do? (Responses you're looking for include, "I'd want to know why they were leaving, and if there was anything I could do to help or keep friends from leaving.")

Did you know this is happening to monarch butterflies, and they need our help? In the last 20 years, when I was growing up, the monarch population in North America went down by 90 percent. Here's what 90 percent looks like. (Draw 10 tally marks on a piece of paper – each tally represents a monarch. Now mark out nine tally marks. The one remaining tally mark represents the only remaining monarch). Scientists know what will help their numbers go up; healthy, diverse habitats that do not use pesticides or insecticides (no chemicals). (Stop for a moment and ask what your children could do to help monarch butterflies. Based on prior learning, children may suggest a garden, a place to live, etc. Go with the garden idea and then watch this National Geographic Video: <http://video.nationalgeographic.com/video/news/140819-monarch-butterfly-way-station> [vin?source=searchvideo](http://video.nationalgeographic.com/video/news/140819-monarch-butterfly-way-station). Continue the discussion below.)

Monarch butterflies need two kinds of plants, host plants, and nectar plants. Host plants are considered the "nursery," while the nectar plants are where they "eat." Butterflies do not sleep like you and me; they only rest (butterflies are quiescent). When butterflies need to take shelter for the night, they go to protected places called "roosts." Roosts may be tall grasses, perennial herbaceous plants, woody shrubs, and caves, and in some cases, man-made structures.

Diversity is the key to a successful Monarch Recovery Garden (MRG). A garden's or container's location will need to be in an area of full sun where it receives at least eight hours of direct sunlight. Also consider wet, sandy, or muddy spots for butterflies to take in salts and other mineral nutrients (look up "puddling"). Using dark stones or tiles for butterflies to perch on to warm up on chilly mornings adds to the butterfly activity in the garden.



2. Hand out the Monarch Recovery Garden model box (see *Engineering Option* below for instructions on creating these boxes) and *MRG Model Guide*. Go over safety and your expectations for constructing the model, such as how much time they have.
3. Once children have completed their model and the *MRG Model Guide*, hang it up.
4. Use the guide when you're ready to create the monarch recovery garden, either in a container or in the ground.

Monarch Recovery Garden Model Supply Box Instructions

Use a cardboard or clear plastic shoe box to store each group's model materials. Use items found in nature or around the house. The following list is only a suggestion. When you have gathered what you feel are adequate supplies to create a model of a Monarch Recovery Garden.

pattern blocks	sticks	washi tape
leaves	cotton swabs	craft pom-poms
colored pieces of paper	cotton balls	popsicle sticks
bark	legos	clothes pins
grass	gravel	tree seeds (acorns, pecans, etc.)

Continue to the next page.



MONARCH RECOVERY GARDEN MODEL GUIDE

What should be in the garden to help increase the monarch population?

1.	2.	3.
4.	5.	6.

What will each object in my model represent?

OBJECT	WHAT IT REPRESENTS
Example: an acorn	a tree
1.	
2.	
3.	
4.	
5.	
6.	
Extra:	
Extra:	

After the key is complete, come to me, and let's talk about your plan.