

ENVIRONMENTAL LEARNING PROGRAMS CELEBRATE WILDFLOWERS

#12 POLLINATOR FIELD GUIDES

CONTENT	Flowers of different colors attract different pollinators.
GRADE LEVEL	K-6
OBJECTIVES	Using various colors of pressed flowers, create a field guide to the pollinators for various colors of flower.
PROCESS AND RESEARCH SKILLS	Comprehension, application, analysis and synthesis.
PRODUCT	Field guide to the pollinators for various colors of flowers.
SUGGESTED LOCATION	In the classroom.
TIME REQUIRED	15 minutes to one half hour for each of 2 phases of the project. Two week waiting time between phases, for pressing/drying of flowers.
MATERIALS	Flowers for pressing, telephone books, 5 x 8 card for each student. Purchase flowers at the florist or collect from the home landscape.
ACTIVITY AND DISCUSSION	 What is the purpose of plant colors (pigments)? (to attract different pollinators.) Pollinator preferences: bees - blue or yellow flowers with sweet fragrances. hummingbirds - red flowers with long tubes butterflies - brightly colored flowers in clusters. moths - white flowers with strong scents. beetles - bowl shaped flowers with lots of pollen.
	3. Why do you think each pollinator prefers that particular color? bees - they can see it best and fragrant flowers make the sweetest honey. hummingbirds - they can see it best and the long floral tube is to accomodate their long bill. butterflies - they can see it best and spend time crawling over a single plant, eating nectar from several flowers. moths - to be easily detected at night. beetles - easy to climb into; lots to eat.

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ACTIVITY AND DISCUSSION CONTINUED

4. Collect and press flowers that would be pollinated by each of the above mentioned creatures.

PRESSING FLOWERS

Select blossoms that are fairly flat. If bumpy like a rose, separate into petals. Pick blooms before they begin to wilt. If the blossom has water on it from rain or garden sprinkling, allow it to dry before pressing.

The simplest plant press is an ordinary urban telephone book. Open the book to any page. Place the blossoms or petals on the page so that none are touching one another. Arrange them as flat as possible.

Many flowers can be pressed in a single telephone book. Be sure to leave at least 6 pages between each set of pressed flowers. These pages serve as blotters to absorb moisture from the flowers as they dry.

When you have placed as many flowers into the telephone book as you desire, close the telephone book. Place a heavy weight on it for 2 weeks. Do not open the book to take a peek for at least one week.

5. Put it all together.

MAKING THE FIELD GUIDE

Be sure that your pressed flowers are virtually dry and that no mold or mildew is present .

Select flowers/petals you wish to use and arrange them on a 5×8 card. Write the name or draw the creature pollinator next to the appropriate color of flower. There is no need to glue flowers in place.

Laminate flowers/petals to card with clear contact shelving paper.

6. Test your pollinator field guide in the field.

EVALUATION Completeness, comprehension and success of pollinator field guide.

EXTENSION 1 Investigate the value of bats and other mammals as pollinators of wildflowers.



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EXTENSION 2 Investigate wind as a pollinator. What noticeable visual difference is there between creature pollinated wildflowers and wind pollinated wildflowers?

Wind pollinated wildflowers have no need to attract pollinators by being beautiful or fragrant. Consequently, wind pollinated wildflowers are usually not "showy" nor do they have a scent or treat of nectar. They do however have a seemingly over-abundance of pollen since pollination by wind or water is such a chancy thing. Examples of wind pollinated plants include: grasses, ragweed, sagebrush and many trees such as oaks, maples, and elms.

1. The pollen of which kind of plant, creature pollinated or wind pollinated, do you think is more likely to cause hayfever? Wind pollinated. Why? It's blowing around in the air all the time, and can easily enter your nose or eyes. Creature carried pollen is "heavier" and is sometimes sticky in order to stick to the creature. Generally, beautiful wildflowers DO NOT GIVE YOU HAYFEVER.

EXTENSION 3 Using pressed flowers, make some art pieces such as book marks or greeting cards.