

Wonderful Wildflowers

Overview: A cultivated garden is not a necessity for introducing students to the wonders of plants. Wildflowers provide a fascinating tool for teaching about plant structures, lifecycles and ecosystem dynamics.

Grade Level/Range: K- 4th

Objective:

Students will:

- Use observation skills to find examples of wildflowers.
- Learn about some of the characteristics of wildflowers that help them survive in their environment.
- Explore the importance of wildflowers in our ecosystem.

Time: 1 to 2 hours

Materials:

- Wildflower Observation Journal Page
- Clipboards or a piece of cardboard with a paper clip
- Pencils
- Cameras (optional)
- Chart paper
- Printed or online wildflower guides

Background Information: Wildflowers are hardy survivors that can grow without being planted — even in challenging environments such as roadsides and cracks in the sidewalk. In a broad definition, they are blooming plants that should not need to be planted by people (although they can certainly be planted intentionally) and can grow in natural environmental conditions without additional inputs. When talking about wildflowers, most gardeners are referring to native plant species; however, there are many examples of plants that have naturalized in new areas when introduced when conditions are right.

Wildflower plantings — both wild and those planted by gardeners — usually include a diverse array of plant species. They feature annuals (plants that flower and complete their life cycles in one year, often reseeding themselves), biennials (plants that bloom during the second and final year of their life cycle), and perennials (plants that bloom for several years). Their flowers and leaves provide a food source for pollinators and other animals, their roots stabilize the soil and prevent erosion, and their leaves clean the air for us all.

Since they are self-reliant, one of the most interesting things to study about wildflowers is their adaptation for seed dispersal. Many



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have seeds with structures to help them fly in the wind to travel to new locations. Others have seeds with hooks that hitch a ride on the fur of unsuspecting animals. In order to survive, they must find ways to spread and thrive using the conditions their environment provides.

Laying the Groundwork: Introduce students to wildflowers using the Background Information. Give each student a copy of the Wildflower Observation Journal Page and take a trip to the schoolyard or a nearby greenspace to look for wildflowers. Alternatively, students can take the page home and explore in their own neighborhood. Ask each student to find one example of a wildflower and then use the observation worksheet to record their findings. Taking a picture of their wildflower is an optional additional activity if proper tools are available.

Exploration:

1. Return to the classroom and group students who observed the same type of wildflower into teams. Let them share their findings with each other first and then ask them to create a summary page about their observed plant on a sheet of chart paper. Next, ask them to share their summary with the class.
2. As a class, work to identify the wildflower plant observed by each group by common and scientific name. There are many printed guides available, such as *Peterson First Guide to Wildflowers* by Roger Tory Peterson, or you may want to try a digital resource such as [iNaturalist's Guides](#), [iNaturalist's Seek App](#) or [The Lady Bird Johnson Wildflower Center Plant List](#) organized by state.
3. Once the plants are identified, read more about the characteristics of each plant and consider the following questions:
 - How is this wildflower plant well adapted to grow in our environment without extra help? How do they obtain all the things they need to survive?
 - How does this wildflower plant benefit our local environment? How does it help the other organisms in our ecosystem? Are there any insects that feed on their leaves? Are there any pollinators that survive on their nectar? Does it have deep roots that help stabilize our soil?
 - Next find a picture of its seeds and ask students to consider how its seeds travel. How are the seeds adapted to spread throughout our environment?
4. Conclude this activity by using your observations and research to create your own wildflower guide that you can share with other classes, families and your community.

Making Connections: Read the book *Miss Rumphius* by Barbara Cooney. How did Miss Rumphius use wildflowers in her community? Share this quote from Lady Bird Johnson: "Where flowers bloom so does hope." Ask students if they agree with that idea. Brainstorm ways your class might be able to help beautify and bring hope to their school community.

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Branching Out:

– Wildflowers have inspired many legends over the years. Explore some of the legends for your local wildflowers. American Meadows, a company that sells wildflower seeds, offers some examples of [wildflower folklore](#) on their website. You may also want to check out the book *Bloomin' Tales* by Cherie Foster Colburn or *The Legend of the Bluebonnet* and *The Legend of the Indian Paintbrush* by Tomie DePaola.

- Make [seed balls](#) containing wildflower seeds to help introduce new plantings to your schoolyard or community greenspaces.

- Plan your own wildflower meadow. Use wildflower seed specifically adapted for your region.

Link to Standards:

Wildflower study could be used to teach the following NGSS Performance Expectations:

K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.

K-ESS3-1. Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.

2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.

2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.

3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

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