

## Colors in Nature

Educational Activity: **Grades K-2**

Time: **One 60-minute class period**

### Overview:

Using colored beads to identify colors, students observe different colors in plants and record what they observe.

### Integration with Project BudBurst

Elementary school students participating in Project BudBurst make careful observations of the timing of leafing, flowering, and fruiting of a selected plant. Learning to make observations is an important skill for students at this age. This lesson Colors in Nature teaches students to look carefully for colors in plants, and is an important first step before making other observations. The lesson may be used as an introductory activity prior to making Project BudBurst observations of plant changes, to teach basic observations skills and help students choose a plant for study. Alternatively Colors in Nature may be used while students are making observations of their Project BudBurst study plants (particularly after flowering) to strengthen students' observations skills.

### Learning Outcomes:

Students will be able to:

- Identify different colors found on a variety of plants.
- Describe (using simple mathematics) which plant colors are most common and least common in their schoolyard environment.

### Materials:

- Plastic beads of different colors, particularly colors found in nature
- String, elastic cord, or pipe cleaners
- Colored pencils
- Copies of the Colors in Nature Recording Sheet

### Education Standards: Available at

[http://budburst.org/educators/educators\\_colorsinnature\\_sg.php](http://budburst.org/educators/educators_colorsinnature_sg.php)

## Preparation

Identify an area to observe wildflowers, grasses, shrubs, and trees.

## Activity

- 1) Have each student make a bead bracelet with one bead of each color. Tie the bracelet on each student's wrist.
- 2) Pass out the Colors in Nature Recording Sheet and instruct the students to color the outer band of the color wheel with colored pencils so all of the colors on their bracelets are represented. Give two copies of the recording sheet to each student if they have more than eight different colors of beads in their bracelets.
- 3) Take the students outside to a location where they can make observations of plants. Instruct the students to find as many colors as they can in the plants around them – this includes grasses, wildflowers, shrubs, and trees. Weeds are often wildflowers and they count, too! When looking for colors in plants, have the students look all around them: look up high, look down at the ground, or look under things.
- 4) Have students record each plant color they see in the appropriate wedge on their Colors in Nature Recording Sheet. If a student sees several plants with the same color, they can make a mark for each plant with that color. If a single plant has multiple colors, such as green leaves, pink flowers and brown stalks, they can make one mark for each of these colors.
- 5) After returning to the classroom, have the students share what they observed. Have students sum up how many times they saw each color and have them record their data on a class chart. Help students sum up totals.

### Discussion Questions

- What colors were the easiest to find?
- What colors were the hardest to find?
- Which colors were you the most surprised to find?
- Where did you find certain colors?
- Did a certain type of plant have the most/least colors?

### Suggested Extension Activities

- Have students create graphs of the frequency of colors the entire class found when making their color observations.
- For students participating in Project BudBurst, have students describe the number of colors found on their study plant, either in writing or in a color drawing.

### Background Information

Careful observation is a foundation of all science. It seems like such a simple skill, but it is not always easily mastered. When making observations, it is important to look closely in order to notice details, including information about size, shape, color, texture, and spatial relationships. It is also important to use many of the senses: sight, sound, smell, and touch. Finally, it's important to avoid focusing too narrowly on an object so you don't see how it relates to other objects around it and to the general environment. Spending time making quality observations will help students learn the skills involved in this part of scientific inquiry. Quality observations are detailed, accurate, and often conjure up an image in the mind of the person hearing the observation for the first time. For example, describing something as "short" doesn't provide an accurate description, while saying, "it's taller than a two liter bottle and shorter than this stool" provides much more information. The details of the observation become extremely important and allow students to form valid observations based on a series of true statements.

## Student Assessment Suggestions:

Teachers can have students write and/or draw a summary of what they found. For younger students, the teacher may prompt students to answer questions such as:

- I saw the color \_\_\_\_\_ the most times. This color was usually found on the plant's \_\_\_\_\_.
- I saw the color \_\_\_\_\_ the fewest times. This color was usually found on the plant's \_\_\_\_\_.
- The color I saw most often in nature was \_\_\_\_\_.
- I saw \_\_\_\_\_ different colors on plants in our schoolyard.

Source: Activity developed by the UCAR Office of Education and Outreach

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## Colors in Nature Student Recording Sheet

Name: \_\_\_\_\_

### Directions

Color the outer bands of the circle with the colors of the beads on your bead bracelet (use two of these sheets if you have more than eight different colors of beads in your bracelet). Then look for plants that have the colors of your beads. Make sure you look at all of the parts of the plant you can see - stems, leaves, flowers, and seeds. Make a mark in the colored wedge below for each color you observe.

