Flower Power

Overview:

Through the ages, flowers have been the inspiration of great works of art, poetry and music. We give flowers to express love, joy, congratulations, sadness and grief. In this TeachersCount lesson, students will examine the role that flowers play in the world and in their own lives. They will analyze famous quotations, design a flower garden, write a poem, examine the importance of a flower from varying points of view, and investigate threatened and endangered plant life. The overall goal of the lesson plan is to enhance students' literacy development by providing engaging learning materials designed to promote creativity and critical thinking skills.

Grade Level:

6-12

Subjects:

Language Arts, English, Science, Environmental Science

Learning Objectives:

Students will do the following:

- Write postcards from a variety of perspectives
- Design a garden plan for a specific situation
- Compose poems based on their observations

- Summarize, interpret and synthesize information from a variety of resources

- Research endangered plant species and use the information to create a public service announcement

Learning Activities

Building Background

Activity One: The Secret Meaning of Flowers

The purpose of these activities is to activate students' background knowledge and to pique students' interest in the subject matter.

1. Write the two columns of words below on the board. Explain to students that flowers have a language of their own and that throughout the course of history people have attached meanings to flowers to communicate messages. Ask students to pair the meanings with a respective flower. Teacher Note: You may choose to show students pictures of the flowers on the list. The following website contains photographs of many of the flowers on the list: http://www.flowerbase.com/.

Flowers	**Meanings**
Daisy	Peace
Forget-me-not	Endurance
Cactus	Childishness
Iris	Pride, sunshine
Sunflower	Faithfulness, virtue
Violet	Good fortune
Apple blossom	Wisdom, faith, hope
Buttercup	Good luck, be mine
Four-leaf-clover	True love, good memories

Olive branch Loyal love, innocence

2. Provide time for students to share their answers. Discuss the thought process that they used when they made their decisions.

Answers: **Daisy**: loyal love, innocence, **Forget-me-not**: true love, good memories, **Cactus**: endurance, **Iris**: wisdom, faith, hope, **Sunflower**: pride, sunshine, **Violet**: faithfulness, virtue, **Apple blossom**: good fortune, **Buttercup**: childishness, **Four-leaf-clover**: Good luck, be mine, **Olive Branch**: peace

Activity Two: Flower Quotations

1. Tell the class that they are going to participate in a "Think, Pair, Share" activity. Ask the students to consider whether they agree or disagree with the two quotations listed below and respond in writing:

"I'd rather have roses on my table than diamonds on my neck."
- Emma Goldman

"Where flowers bloom so does hope."
- Lady Bird Johnson

Ask students to contemplate and explain what they believe to be the meaning of the following quotations:

"The world is a rose; smell it and pass it to your friends."
- Persian Proverb

"The earth laughs in flowers."
- Ralph Waldo Emerson

2. Divide the class into groups of two, and ask students to share their responses.

3. After a brief period, ask for student volunteers to share their thoughts and ideas with the entire class.

Steps for Learning

Activity One: Same Object, Different Perspectives

The purpose of this activity is for students to conduct research on a specific flower, and write about the flower from a variety of perspectives.

1. Ask students to choose one flower that would be of particular interest to a botanist, a gardener, and a bee/butterfly/hummingbird.

2. Tell students to research the flower and gather information about the structure of the plant, how and where the plant is grown, and why a butterfly, bee or hummingbird is attracted to the plant.

3. Pass out four postcard-sized pieces of paper to each student. Tell students to draw a picture of the flower or paste a graphic image of the flower on the front sides of the four cards. Explain to students that they are going to write four post cards to the flower that they chose, explaining why they admire the flower.

Card One

- Write a postcard from the perspective of a botanist. Include information about the structure, growth, and identification of the flower.

Card Two

- Write a postcard from the perspective of a gardener. Include information about where the plant grows, what conditions the plant needs to thrive, and any unique features regarding the plant.

Card Three

- Write a postcard from the perspective of a bee, butterfly, or humming bird. Include what attracts you to the plant, what you get from the plant, and how the plant benefits from your existence.

Card Four

- Write a postcard from your perspective. Include why you admire the flower.

4. Provide time for students to share their postcards.

Activity Two: Design a Garden

The purpose of this activity is to help students develop critical thinking and problem-solving skills as they design a garden for a specific purpose.

1. Divide the class into small groups, and ask each group to select one of the gardens listed below. Explain to students that they are going to design a flower garden tailored to fit the specific needs of their assigned garden.

- Drought tolerant garden
- Fragrance garden
- Edible garden
- Deer Resistant garden
- Color (yellow/orange, blue/purple, or cream/white) garden
- Shade garden
- Full sun garden
- Bird or butterfly garden

Provide the following resources for students to use in designing their gardens:

- Cornell's Home Gardening Website
  http://www.explore.cornell.edu/scene.cfm?scene=Home%20Gardening

- The United States National Arboretum Website
  http://www.usna.usda.gov/Gardens/gardeningr.html

- Perkins & Jackson's Garden-Inspired Living Website
  http://www.jacksonandperkins.com/cgi-bin/ncommerce3/CategoryDisplay?cgmenbr=201&cgrfnbr=2

- Burpee Website
  http://www.burpee.com/jump.jsp?itemType=GATEWAY&itemID=9
  This site contains a "Growing Zone Finder" to guide students in determining what plants will grow in their area.

- Gardening books and magazines

- Plant and seed catalogs

2. Tell students to consider the following elements as they design their gardens:

- Soil
- Sun
- Water supply
- Zone (See Burpee Website above)
- Plant height
- Flowering times

3. Explain to students that they will include a map, drawings or pictures of the specific plants, and a written explanation

of why they chose the plants they included in their garden plan.

4. Provide time for the groups to present their gardens to the class.

Activity Three: Flower Poems

The purpose of this activity is to enhance students' observation and description skills.

1. Share several poems about flowers with the class. The Poem Hunter website is an excellent resource for flower poems. http://www.poemhunter.com/poems/flower/

2. If possible, bring in five or six different fresh flowers. If you don't have access to fresh flowers, you may use images from the Internet or photographs from books and magazines.

3. Provide time for students to sit and observe the flowers. Encourage students to use as many of their senses as possible and record words that describe the flower on a piece of paper. Tell students to think about words that describe how the flower looks, feels, and smells as well as any emotions that the flower evokes in them.
Teacher Note: Before beginning this activity, you may choose to share Georgia O' Keeffe's flower paintings to inspire students to observe the flowers from a different perspective. The ARTCYCLOPEDIA website provides examples and links to O' Keeffe's work.
http://www.artcyclopedia.com/artists/okeeffe_georgia.html

4. Tell students that they are going to incorporate the words they recorded to describe the flower into a haiku poem. Explain to students that a haiku poem is a very short, centuries-old form of Japanese poetry. Haikus are often written about nature and convey emotions. A traditional

Japanese haiku has a total of seventeen syllables divided into three lines:

First line: five syllables
Second line: seven syllables
Third line: five syllables

Teacher Note: Explain to students that they don't need to follow this exact structure in the creation of their poems. They may choose to describe the flower using as few words as possible.

5. Ask students to illustrate their poems and bind the finished poems into a class book.

Extension Activities

Activity One: Endangered Plants

The purpose of this activity is to build students' awareness of endangered plant species in their state.

1. Involve students in a discussion about the importance of saving threatened and endangered plants. The discussion might touch on how plants have medicinal, agricultural, ecological, commercial and aesthetic/recreational value, Following the discussion, students may test their knowledge by taking the *Quiz on Plants in Peril* on the Center for Plant Conservation website.
http://www.centerforplantconservation.org/peril/quiz.html

2. Ask students to locate threatened and endangered plants in their state using the North Carolina State University Cooperative Extension website.
http://ecos.fws.gov/tess_public/TESSWebpageUsaLists?state=all

3. Have students choose a threatened or endangered plant in their state and gather information about the plant. After students have completed their research, have them use the information to create a public service announcement.

Guidelines for PSA

- Message should be 10, 15, 30 or 60 seconds in length
- Include the most important information in the first paragraph
- Use an active voice
- Use short sentences written in everyday language
- Tell how this information can help the viewer or listener
- Ask for action

4. Pass out and discuss the following steps for the PSA:

- Clarify your target audience
- Complete any necessary research on your issue
- Create a script or storyboard for your PSA
- Decide where you will film or record your announcement and who will act or read the announcement, and discuss the use of props or graphics
- Review and complete final announcement edits

5. Provide time for students to share their PSAs with the entire class. You may also choose to approach a local television radio or television station about the possibility of airing selected PSAs on their station.

Activity Two: Community Flower Garden

Create a school or community flower garden. The following websites provide information to help get you started:

- Kids Gardening
  http://www.kidsgardening.com/

- American Community Gardening Association
  http://www.communitygarden.org/

- School Gardens
  http://hort.ifas.ufl.edu/ggk/schgard.htm

National Education Standards

www.mcrel.org

WRITING

Standard 1:
Uses the general skills and strategies of the writing process
http://www.mcrel.org/compendium/Benchmark.asp?SubjectID=7&StandardID=1

Level III (Grade 6-8)

1. Prewriting: Uses a variety of prewriting strategies (e.g., makes outlines, uses published pieces as writing models, constructs critical standards, brainstorms, builds background knowledge)

Standard 4:
Gathers and uses information for research purposes
http://www.mcrel.org/compendium/Benchmark.asp?SubjectID=7&StandardID=4

Level III (Grade 6-8)
1. Gathers data for research topics from interviews (e.g., prepares and asks relevant questions, makes notes of responses, compiles responses)

6. Organizes information and ideas from multiple sources in systematic ways (e.g., time lines, outlines, notes, graphic representations)

Level IV (Grades 9-12)

2. Uses a variety of print and electronic sources to gather information for research topics (e.g., news sources such as magazines, radio, television, newspapers; government publications; microfiche; telephone information services; databases; field studies; speeches; technical documents; periodicals; Internet)

6. Uses strategies to adapt writing for different purposes (e.g., to explain, inform, analyze, entertain, reflect, persuade)

READING

Standard 7:
Uses reading skills and strategies to understand and interpret a variety of informational texts
http://www.mcrel.org/compendium/Benchmark.asp?SubjectID=7&StandardID=7

Level III (Grade 6-8)

1. Uses reading skills and strategies to understand a variety of informational texts (e.g., textbooks; biographical sketches; letters; diaries; directions; procedures; magazines; essays; primary source historical documents; editorials; news stories; periodicals; bus routes; catalogs; technical directions; consumer, workplace, and public documents)

3. Summarizes and paraphrases information in texts (e.g., arranges information in chronological, logical, or sequential order; conveys main ideas, critical details, and underlying meaning; uses own words or quoted materials; preserves author's perspective and voice)

Level IV (Grades 9-12)
1. Uses reading skills and strategies to understand a variety of informational texts (e.g., textbooks, biographical sketches, letters, diaries, directions, procedures, magazines, essays, primary source historical documents, editorials, news stories, periodicals, catalogs, job-related materials, schedules, speeches, memoranda, public documents, maps)

WORKING WITH OTHERS

Standard 1:
Contributes to the overall effort of a group
http://www.mcrel.org/compendium/Benchmark.asp?SubjectID=22&StandardID=1

Level IV (Grade K-12)

THINKING AND REASONING

Standard 5
Applies basic trouble-shooting and problem-solving techniques

Level IV Grade: 9-12

1. Applies trouble-shooting strategies to complex real-world situations
2. Understands that trouble-shooting almost anything may require many-step branching logic
10. Evaluates the feasibility of various solutions to problems; recommends and defends a solution

Level III Grade: 6-8

1. Generates alternative courses of action and compares the possible consequences of each alternative

2. Selects the most appropriate strategy or alternative for solving a problem

SCIENCE

Standard 6
Understands relationships among organisms and their physical environment

Level IV Grade: 9-12

1. Knows how the interrelationships and interdependencies among organisms generate stable ecosystems that fluctuate around a state of rough equilibrium for hundreds or thousands of years

3. Knows that as matter and energy flow through different levels of organization in living systems and between living systems and the physical environment, chemical elements

Level III Grade: 6-8

2. Knows factors that affect the number and types of organisms an ecosystem can support (e.g., available resources; abiotic factors such as quantity of light and water, range of temperatures, and soil composition; disease; competition from other organisms within the ecosystem; predation)

3. Knows ways in which organisms interact and depend on one another through food chains and food webs in an ecosystem

4. Knows how energy is transferred through food webs in an ecosystem.