

Service-Learning Curriculum Unit Plan

Unit/Topic: Plant Classification	Grade Level: 9-12
Service Idea: To recycle discarded floral arrangements from the local funeral home, turn them into smaller arrangements and deliver them to the local nursing home.	
1. Content Standards/Grade Level Content Expectations: Plant Classification-Define genus, species and variety. Plant Parts and Functions-Examine and ID plant parts including seeds, roots, leaves, stem, fruit and flower.	
2. Students will understand that.... The relationship between plants, flowers and seeds. How flowers form from seeds. The impact of receiving flowers on the elderly. How classification works.	3. Essential Questions to Guide Learning & Inquiry: What is the process from seed to flower? How do seeds form? What is the difference between garden plants and flowers? How can flowers be rearranged? Who else in the community can benefit from this? Why is classification important?
4a. Students will know.... Vocabulary-parts of the plant and flower. Classification order	4b. Students will be able to do.... Identify flowers and plants. Recognize genus, species, and variety. Dissect flowers Classify flowers.
Assessment Evidence	
5a. Performance Task: Students will create classification sheets as the different arrangements come in. Students will dissect the larger arrangements into smaller ones. Students will deliver arrangements to the nursing home.	5b. Other Assessment Evidence: Students will complete various quizzes ID the parts of the plants. Students will complete a classification project.
5a. Performance Criteria: Classification rubric	5b. Other Assessments Criteria: Students are able to ID the parts of the plant and flower. The arrangements are successfully delivered.

Learning Plan:

Students will complete the following activities: Parts of a plant packet, plant classification lab, Flower dissection, plant classification and two powerpoints-Plant parts and their function and plant classification.

Begin by asking the class what to do with this huge floral arrangement (obtain one from the funeral home). Students will brainstorm various ideas. Write these down and eventually they will come up with donating them to various places. (30 min)

Begin with background on plant parts. Have students label the parts of the plant and complete the PowerPoint on plant functions. 45 min

Next, with some carnations from a local florist or store, have the students dissect a flower and complete the flower dissection lab. 1 Day

Have students complete the plant classification exercise. Have them present their classifications to the group. Students may wish to come up with their own classification sheet to use for the donated flowers. 1 day

Show the how to arrange a flower PowerPoint and have the students practice on their own arrangement they can take home or follow some of the other ideas listed. 1 day

A. Steps for Students:

- Lead Activity Have students research our community and brainstorm ideas for these flowers. Have students keep a journal about their thoughts and feelings during the process- not all students will be comfortable going to nursing homes in the beginning.
- Students will be responsible for learning the parts of the flower, classification systems and floral arranging. Students will be assessed by work completed, plant classification quiz.
- Closure Have students reflect on the experience and how their thoughts on the project changed over the trimester.

B. Notes for Teacher:

Get floral arrangement

C. Materials Needed:

Flowers, dissection kits, floral foam, small vases, scissors, plant food, paper, internet access, carnations,

D. Approximate Time for Unit: 1 week with arrangements and journaling occurring once a week for the trimester.

E. Resources:

Local nursing home or retirement community
Local funeral home
Local floral shops

Lesson 1 of 4**Lesson Essential Question(s):**

What to do with all these flowers?

Lesson Knowledge:

Understanding our community and those who live in it.

Lesson Skill(s)

Brainstorming
Working in a group
Listening
Making decisions

1. Lesson Opener:

Have a large floral arrangement sitting on the desk as students come into the room. Ask students what they would do with it if they had to take it home. Would they leave it this way? Would they take it home? What would they do with it at home? What if our class had one of these every other day? Can we use these flowers to help out community?

Write down student ideas on the board as they come up with them.

2. Transition:

Begin to go over the list students have and work though each one-is it feasible? Can we do it? Would these places/people want these flowers? What do we need to get this done?

3. Activity:

Have students brainstorm ways to distribute the flowers in our community. Who would like to get flowers? Have students work in small groups to determine what to do with the flowers-where is their choice, why should we redistribute the flowers there? How will we get them there? What will we need to make smaller arrangements? Who do we contact? You may wish to take your class to a computer lab to type up their choices and reasons and to research any items they may need. Students will then present their ideas to the class.

4. Lesson Wrap-Up:

Have students regroup to share ideas and vote on what to do with the flowers. Students may cast secret ballots to vote on what to do with the flowers.

5. Additional Lesson Notes:

Depending on student ideas, this may take more than one class period. Also, students may come to a consensus quickly.

Be sure to have administrative approval before starting any projects.

Lesson 2 of 4**Lesson Essential****Question(s):**

What are the parts of a flower?
How to safely dissect a specimen

Lesson Knowledge:

Dissection techniques
Identification

Lesson Skill(s)

Identification
Dissection
Listening
Working with a group

1. Lesson Opener:

Have a bouquet of flowers on the main desk in the room. Explain to the students that they will be dissecting flowers today and go over safety with dissection.

2. Transition:

Hand out identification worksheet and label the external parts of the flower. Show the students the parts of the flower as they are labeling.

3. Activity:

Hand out a flower and dissection kit to each group. Have the students follow the attached lab.

4. Lesson Wrap-Up:

Go over the functions of the flowers and plants with the students. Students will complete a summary as part of the lab-they may share those or not.

5. Additional Lesson Notes:

When first looking at the structures of a flower, it's best to start with carnations. The parts are easy to see and after those are mastered they can also use some of the flowers from the funeral home.

Lesson 3 of 4**Lesson Essential Question(s):**

What is classification and why is it used?

Lesson Knowledge:

How to classify plants
Importance of classification

Lesson Skill(s)

Classification

1. Lesson Opener:

Lead a discussion on grouping and organizing items. How are things organized in your home? In a store? Why is organization important?

2. Transition:

Show the students various ways in which items in the classroom are classified-books, shelves, desks etc.

3. Activity:

Complete the plant classification activity.

4. Lesson Wrap-Up:

Discuss with students the way in which these flowers can be classified and how this will benefit us with our project.

5. Additional Lesson Notes:

Lesson 4 of 4**Lesson Essential Question(s):**

How is a successful floral arrangement made?

Lesson Knowledge:

How to arrange flowers.

Lesson Skill(s)

Balance, design, color selection, arrangement, spacing.

1. Lesson Opener:

Have a couple of arrangements up on the desk-one good and one bad. Ask students to describe what they like and don't like about each arrangement-why don't they like it etc.

2. Transition:

Have them quickly arrange some flowers on their desks-talk about how they look, what did they have questions on, which ones do they like or not? Tell them they will be arranging experts soon enough!

3. Activity:

Have students go through the floral arranging powerpoint with you and then have them attempt their first arrangement on their own.

4. Lesson Wrap-Up:

What worked? What didn't work? Have students reflect and brainstorm on what they need to improve their arrangements.

5. Additional Lesson Notes:

