Plant Parts: Identifying Parts of a Flower

Lesson Description

In this lesson, students discover the basic parts of a flower through a dissection activity. The lesson concludes with a Tribal Elder discussing traditional uses of flowers and/or pollen from plants that are native to the area.

- Time required: 60 minutes
- Location of lesson: Classroom and garden

Learning Objectives

- Learn the structure and function of flower parts: petals, pollen, pistil and stamen.
- Identify traditional uses of flowers and/or pollen.

Materials and Preparation

- Invite a Tribal Elder to discuss traditional uses of flowers and/or pollen
- Tulips for dissection, 1 per pair of students
- Toothpicks, at least 1 per pair of students
- Q-tips, at least 1 per pair of students
- Magnifying glasses, several
- Tape, several rolls
- 📖 **Flowers in Bloom**
- 📖 **Flower Dissection: identifying parts of a flower**
- 📖 **Parts of a Nasturtium Flower**
- ✋ **Flowers to Fruit** – printed out
- Prepared vegetable snack of the week – 1 for each student
- Water to drink during the Class Warm-up – water dispenser in the classroom and 1 cup or a water bottle for each student

Class Warm-up: Champion Cheer and Veggie Taste Test (5-10 minutes)

- Give each student a cup of water or ensure that they have a filled water bottle in front of them.
- Give each student the prepared veggie snack of the day.
- Lead the students in enthusiastically reciting the 📖 **Champion Cheer**.
- At the end of the cheer, drink water and eat the veggie snack together.
- Have students complete their 📖 **Taste Test Observations** about the vegetable snack of the week.

Review of Last Lesson (2-3 minutes)

- Review the evaluation questions from last week's lesson. Evaluation questions from all lessons are listed at the end of the workbook 🕮.

Class Discussion (10 minutes)

Have you ever looked really closely at a flower? All flowers have the same basic parts even though they all look unique. Flowers have a very important job in nature. Flower parts make new seeds for the plant. Flowers have male and female parts that use pollen to create new fruits and seeds. Without flowers, there could be no seeds or fruits. How would life change if there were no more flowers?

Show students the teacher resource ✋ **Flowers To Fruit** to illustrate a squash blossom evolving into a squash.

Today we are going to learn about 4 basic parts of a flower: petals, pistil, stamen and pollen. Refer students to the workbook page, 🕮 **Parts of a Nasturtium Flower**. *This is a diagram of flower parts. **Petals** attract pollinators, like bees. Their colors, scents, shapes and sizes serve to attract pollinators to them. The **pistil** is the female part of the flower. The **stamen** is the male part of the flower. The **pollen** has to travel from one flower to another (via pollinators, like bees) to make new seeds.*

Today, we are going to take apart, or dissect, a flower to discover all of these flower parts.

Activities (40 minutes)

- 🕮 **"Basic Flower Dissection" (20 minutes)**: Students dissect flowers to observe the basic parts: petals, pollen, stamen and pistil.
    1. Refer students to the workbook page, 🕮 **Flowers in Bloom**.
    2. Divide students into pairs and hand out 1 tulip to each pair of students.
    3. Have students draw a careful, detailed picture of the flower in their workbook page, 🕮 **Flowers in Bloom**.
    4. Hand out a toothpick and q-tip to each pair of students. Pass out magnifying glasses if available.
    5. Have students look carefully at the flower and complete question # 1 in their workbooks. (What observations did you make while exploring the flower?)
    6. Model the dissection of the flower in front of the class as students follow along. Slowly remove each flower part and discuss:
        a. *What part of the flower is this? How can I best describe it? What does it look like? What might be its purpose? How does it help the plant? What part of the flower is it according to our diagram?*
        b. *The **Petals** attract pollinators with their bright colors and scents*
        c. *The **Pistil** is the female part of the plant*

   d. *The **Stamen** is the male part of the plant*
   e. *The **Pollen** has to travel from one flower to another (via pollinators like bees) to make new fruits and seeds*
7. Have students tape each piece of the flower in their workbook page 🕮 **Flower Dissection- Identifying Parts of a Flower**.
8. Have students complete question # 1 in their workbooks. (Observations and notes about flower parts)

- **"Elder Discussion" (20 minutes)**: Students listen to a Tribal Elder speak about traditional uses of flowers and/or pollen from plants.
   1. Encourage the Elder to speak about flowers that are native to the area. If possible, take the students out for a brief hike to observe flowers.

Evaluation Questions (5 minutes)

1. *How do flowers attract pollinators?* (Answer: with their petals: Bright colors, sweet smell, etc.)
2. *What do flowers do for the plant; what is their purpose?* (Answer: they make seeds)
3. *What is the stamen?* (Answer: the male part of the plant)
4. *What is the pistil?* (Answer: the female part of the plant)
5. *What does pollen do?* (Answer: helps create new seeds and fruits by traveling from one flower to another on a pollinator, like a bee)
6. *How much water should you drink every day?* (Answer: at least 6 cups of water a day)
7. *How many fruits and vegetables should you eat every day?* (Answer: at least 5 fruits and vegetables a day)
8. *Does gardening connect you to your culture and help you learn new words in your language?* (Answer: yes)

Preparation for Future Lessons – Reminder for the Instructor

- Review the materials and preparation needed for the next lesson.
- Remember that an Elder guest instructor is needed for these Spring lessons: lesson 1 (Eating a Rainbow), lesson 4 (Water and Precipitation), and lesson 9 (Plant Parts: Identifying Parts of a Flower).

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