**Flower Dissection**

**Materials:**
- Tape
- Flower parts worksheet
- Pencils
- Flowers

**Overview & Objective**
Big and small, flowers play an extremely important role in our school garden. Flowers provide food for various pollinators that visit our garden. Pollinators are attracted to the brightly colored flowers we strategically plant near our vegetables so they are around to aid in the pollination of crops such as tomatoes, cucumbers, peppers, strawberries and other fruiting favorites.

In this lesson, students will answer the question, "What’s Happening Inside a Flower?" by dissecting flowers collected from the school garden.

Students Will:
- Identify four different parts of a flower
- Identify the functions of each part
- Recognize the connection between flowers, pollinators, and their food.

**Pre-Activity Questions:**
- Ask your students to recall the parts of a plant: roots, stem, leaves, flowers, fruits, and seeds.
- Ask students pair share their favorite fruits.
- What do bees, butterflies and other pollinators eat?
- Where do fruits and seeds come from?

**Materials:**

**Standards and Curricular Connections:**

**NGSS**
- 2-LS4-1. Interdependent Relationships in Ecosystems
- 3-LS4-2. Biological Evolution: Unity and Diversity
- LS1.A: Structure and Function (4-LS1-1.)

**Strategies for Engagement:**
- Read *The Reason for a Flower: A Book About Flowers, Pollen and Seeds* by Ruth Heller
- Have a flower scavenger hunt with younger students. Discover what different colors, shapes, and smells flowers can display.
Flower Dissection

Gateway Greening

Resources:

Connect with us on Facebook to discover upcoming Youth Garden Institute workshops or join the Gateway Greening Educators Group to connect with other teachers:

@ GatewayGreening

Discover season-specific gardening how-to's and examples of current lessons:

@ gatewaygreening

Looking for Field Trip opportunities or need to ask a question about our education services? Please contact education@gatewaygreening.org or 314-588-9600 ext 107

Activity:

- Have students work in pairs. Ask them to pick a flower from the school garden such as a blossom from a flowering fruit tree or a daffodil. You can also supply cut flowers, solitary flowers, one flower per stem, work best for observation.
- Supply each pair of students with a "What is happening inside a Flower?" worksheet.
- Have students work from the outside in, taking apart and identifying one flower structure at a time.
- As they dissect each flower part, have them tape the structure to the bottom of their paper.
- By the end of the dissection, each pair should have identified:
  - 1 sepal - aids in protection and support of flower
  - 1-2 petals - attractant and landing landing pad for pollinators
  - 1-2 stamen - male reproductive organ of flower containing pollen
  - 1 carpel - structure containing the female organs of a flower
- Finish the activity by discussing what they thought the structure of each function could be verses the true function of each part.

Resources:

- Berkley Public School District Gardening and Cooking Program http://www.berkeleyschools.net/gcp/

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What's Happening Inside a Flower?

There are four major parts of a flower. Can you find these in your flower?

If we move from the outside of the flower towards the inside, the major parts are:

- **Sepals**: Usually green leaf-like structures
- **Petals**: Usually brightly colored, right next to the sepals.
- **Stamens**: Stamens almost look like little people. There are often many stamens in a flower. Each stamen has two parts:
  - **Filament**: with a long stalk
  - **Anther**: a balloon-like structure at the top.
- **Carpel**: The carpel is the inner-most part of the plant. It has three parts to it:
  - **Stigma**: the top part – usually this top part is sticky – why?
  - **Style**: the long stalk that leads to a sphere structure at the bottom.
  - **Ovary**: The sphere structure at the bottom of the carpel.

Now we know the different parts of a flower look different – but what do they do?

<table>
<thead>
<tr>
<th>Flower part</th>
<th>Function of Flower Part</th>
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</thead>
<tbody>
<tr>
<td>Sepal</td>
<td></td>
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<tr>
<td>Petal</td>
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<td>Stamen</td>
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