LiveWell Kids
Garden and Nutrition Program

Lesson 4: Plants From Pollination to Food

1st GRADE

OBJECTIVES

By the end of this lesson, students will:

- Observe the anatomy of a flower and understand that each part has an important job.
- Identify the main parts of a plant.
- Recognize that people eat a variety of foods that are parts of plants.
- Learn about a plant's life cycle, including the role of seeds.
- Understand the role of pollinators and observe pollination in the school garden.

SUPPLIES

Supplies to bring from home – **PROVIDED BY VOLUNTEER**:

- One or more flowers with clearly visible reproductive parts.
  - Examples: lily, tulip
- One or more fruits or seed pods with visible seeds.
  - Examples: tomato, milkweed pod

Store flowers in water or refrigerate prior to lesson to prevent wilting.

- Supplies to bring from the shed to the garden:
  - Laminates
    - *The Life Cycle of a Plant*
    - *Anatomy of a Flower*
    - *Flower to Fruit Process*
    - *Parts of a Plant*
  - 2 Cafeteria trays
  - Knife
  - Cutting Board
  - Magnifying lenses
  - Tweezers
  - Optional: Whiteboard, dry-erase marker

- Supplies to bring from classroom to garden - *arrange with the teacher ahead of time*:
  - Paper - one piece per student
  - Writing tools such as crayons, colored pencils, markers

PREPARATION

- Refer to the LiveWell Kids Volunteer Manual on the LiveWell Kids webpage for details about preparing for the lesson one week prior and the day of.
- Because this lesson includes observing pollinators, confirm with the teacher whether any students have insect allergies.

SET-UP INSTRUCTIONS

1. SET UP THE INTRODUCTION AREA:
   - Set out the laminate: *The Life Cycle of a Plant*.

2. SET UP THE FLOWER DISSECTION ACTIVITY:
   - Cut one flower in half lengthwise and place it on a tray.
   - Place any additional whole flowers around the cut flower.
   - Cut the fruit/pod in half and set on the other tray.
   - Place magnifying lenses, tweezers, and laminates: *Anatomy of a Flower* and *Flower to Fruit Process* next to the trays.

3. SET UP THE PLANT PARTS ACTIVITY:
   - Place the laminates: *Parts of a Plant* and *Parts We Eat* near the activity area.

4. SET UP THE POLLINATION ACTIVITY:
   - Set out the laminate: *Anatomy of a Flower*, and book: *What is Pollination?*

Optional: Use the whiteboard and dry-erase markers to aid you in teaching the topic in any of the activities.

INTRODUCTION & MINDFUL BREATHING *(2 MINUTES)*

- Introduce yourself and any other volunteers.
- Guide students through a brief mindful breathing exercise.
- Explain: *"Today we are going to review how plants grow and learn more about how flowers turn into food."*

Life Cycle of a Plant Supplies – Laminate: *The Life Cycle of a Plant*

• Show the laminate.
• Review the plant life cycle:
  ○ Plants start as seeds.
  ○ Seeds grow into plants when they get soil, water, sunlight, and nutrients.
  ○ Plants grow flowers.
  ○ Flowers can become fruit or seed pods with seeds inside.

****Divide Class into Two Groups****

- Split the students into two groups.
- One group goes to the *Nutrition* activity with the other volunteer.
- The other group goes to the *Garden* activity with you.
- Both activities will run simultaneously. Switch groups after 9 minutes.

GARDEN DISCUSSION & ACTIVITY *(9 MINUTES)*

Students will learn about the process of pollination and the development of fruits/pods and seeds in this three-part discussion activity.

Discussion: Anatomy of a Flower

Supplies – Laminate: *Anatomy of a Flower*

Review Content

- Ask students if they remember the anther from last year.
- Explain that the anther is covered with pollen.
- Explain that pollinators pick up pollen when they visit flowers for nectar.

- Use the laminate to introduce the following new content to your class:
  - Point out the ***stigma*,** which is where pollen needs to land for a flower to produce fruits/pods.
  - Explain that the stigma is the opening of the ***pistil***, which the pollen enters and travels down inside, to make a fruit or pod.

Discussion: Looking Inside a Fresh Cut Flower

Supplies – Fresh flower, tweezers, laminate: *Anatomy of a Flower*

- Refer to the cut flower on the tray.
- Use tweezers to gently expose the flower parts.
- Point out the anther and stigma on the real flower.
- Pass the tray so students can look closely.
- **Important:** Students should look only. The flower is fragile.

Discussion: Flower to Fruit

Supplies – Use above supplies plus the cut half of fruit/pod, laminate: *Flower to Fruit*

- Show the fruit or pod and the laminate.
- Explain that when pollen reaches the stigma, part of the flower grows into fruit or a pod.
- Explain that seeds form inside the fruit or pod.

NUTRITION DISCUSSION & ACTIVITY *(9 MINUTES)*

Happening at the same time as the Flower Dissection activity.

IMPORTANT:

Not all plant parts are safe to eat. Students should only eat plants given to them by a trusted adult.

“Plant Part Tour” & “I’m a Plant”

Supplies – Laminate: *Parts of a Plant*

PLANT PART TOUR

- Explain that we eat many different parts of plants.
- Review the main plant parts using the laminate.
- Take a short walk through the garden and look for plant parts we eat, such as:
  - Roots
  - Stems
  - Leaves
  - Flowers
  - Fruits
  - Seeds
- Help students identify examples as you move through the garden.

I’M A PLANT

- Have students spread out in an open area.
- Call out a plant part and have students act it out their own way.
- Describe the function of each part as they move.
- Examples:
  - Roots hold the plant in the ground and take in water and nutrients.
  - Stems hold the plant up and move water through the plant.
  - Leaves reach toward the sun to make food for the plant.
  - Flowers attract pollinators.
  - Fruits protect seeds.
  - Seeds can grow into new plants.

Gather Class Together

POLLINATION *(5 MINUTES)*

Discussion: Pollination

Supplies – Laminate: *Anatomy of a Flower*

- Explain that pollination is how plants make seeds.
- Explain that pollinators move pollen from the anther to the stigma.
- Give examples of pollinators, such as bees, butterflies, bats, hummingbirds, moths, and flies.
- Explain that pollinators help many plants make food.

Activity: Observing Pollination

- Safety Instructions:
  - Observe with eyes only.
  - Move slowly and calmly.
  - Do not touch insects.

- Observation:
  - Walk quietly through the garden.
  - Have students look for insects visiting flowers.
  - Ask them to notice where insects land on flowers.

If no pollinators are present, discuss common pollinators students might see outside of school.

CLOSING *(2 MINUTES)*

- Bring students together to close the lesson.
- Review Questions
  - What part of the flower needs pollen to make fruit?
  - Name one pollinator.

- Key Takeaway (repeat together): "Pollinators help flowers become food."

- If you have time, have students draw/write a "Reflection Page" after the lesson, either in the garden or with the teacher when they return to class. If you see any that you'd like to share with BCHD, take photos of their work and email them to mishell.balzer@bchd.org.

- Thank the other volunteers and dismiss the students.

***Remember to report your lesson as delivered with either the online form or this QR code.**

From your phone, scan this QR code below to report lessons as delivered. Once the page opens, select the 'grid view'. From the computer, click the link **LiveWell Kids Tracking Links 2025-26**