American Heart Association®
Teaching Gardens®

Grade Band
3-5

Time
30 minutes

Season
Fall

Location
Outdoors

Garden Timelines

Description:

In this activity, students explore and then illustrate how leaves change as they grow and then decay.

Materials:

- Blank paper for each student
- Colored pencils for each student

Connections to Content Standards:

NGSS Disciplinary Core Ideas:

LS1.B: Growth and Development of Organisms
Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles. (3-LS1-1)

NGSS Crosscutting Concept: Stability and Change

Preparation:

- Find a spot in your school garden where there are plants that show various stages of development (for example, a deciduous tree with some green leaves and some fallen, brown leaves; or a plant with blooming and dead flowers on it).

Activity:

1. **Discuss Growth:** *As we grow up, we change. Discuss with students: In what ways are you different now from when you were a baby?* Welcome all answers. *Well, just like us, plants change as they grow older. Today we're going to look at how plants change as they grow.*

2. **Create Garden Timelines:** Out in the garden, invite students to find one leaf on a plant. If there are enough leaves growing, you can invite them to pick their leaf. Next, invite them to find another leaf from the same plant that they think is **older** than their leaf. Have them show their older leaf to a partner and share why they thought that leaf was older. Then invite them to look for the **oldest** leaf they can find. Again, have them share with a partner. Now ask students to look for a **younger** leaf, again sharing what they found with a partner and explaining why they thought it was younger. Finally, have them look for the **youngest** leaf and have them show their partner and discuss what evidence made them think that leaf was the youngest. If they picked their leaves, they can lay them down to create a timeline, from youngest to oldest. NOTE: You can do this same activity with flowers if your garden has a lot of flowers!

3. **Illustrate Garden Timelines:** Invite students to illustrate their garden timelines. Have them start with their youngest leaf and end with the oldest. Encourage them to highlight any details that helped them know that each leaf was young or old, such as yellow spots, or holes. Introduce relevant vocabulary for students to use as labels in their diagrams, such as "leaf bud," or "decay."

Garden Timelines, *continued*

4. **Wrap Up:** Compare the growth and change of leaves with the growth and change in humans. *We discussed ways that we are different now from when we were babies. How are older leaves different from when they were younger? What will happen to these oldest leaves over time* (They will decompose and become incorporated in the soil, where new plants can grow!)?