Focus on: Growth of Plants

This lesson is meant to support the unit on Ecosystems. It should be completed at the beginning of the unit and again at the end of the unit. If the growing season of the garden does not align with your timeline for teaching the unit, you can complete this lesson at the beginning of the growing season and again during the last week of school.

Clarifying Objectives:

1.L.1.1 Recognize that plants and animals need air, water, light (plants only), space, food and shelter and that these may be found in their environment.

1.L.1.2 Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.

1.L.1.3 Summarize ways that humans protect their environment and/or improve conditions for the growth of the plants and animals that live there. (e.g., reuse or recycle products to avoid littering)

1.L.2.1 Summarize the basic needs of a variety of different plants (including air, water, nutrients, and light) for energy and growth.

Key Vocabulary:
Definitions can be found at http://learnersdictionary.com

-Plants
-Animals
-Air
-Water
-Light
-Space
-Food
-Shelter
-Environment
-Needs
-Summarize
-Protect
-Improve
-Conditions
-Growth
-Reuse
-Recycle
-Littering
-Nutrients
-Light
-Energy
-Growth

Focus Question(s):

How has the garden changed? Why did it change?

Materials:

- School Garden
- Science Notebooks
- Camera, iPad or other device to photograph the garden.
- Projector to display the photographs for the entire class.

Activities:

1. Take the class to the garden. Have them photograph the garden to record what it looks like on this date. Photograph the entire garden in one photo and take some individual photographs of a variety of plants. It would be helpful to include the students in the photos so you can get an idea of how big/small the plants are when compared to the students.
2. As students explore, use the Guiding Questions to generate predictions for what will happen to the garden over the next few weeks.
3. Students can record their predictions in their science notebooks.
4. At the end of the unit or during the last week of school, return to the garden to repeat step 1. (Be sure to review the first set of photos so you can attempt to photograph the whole garden from about the same spot and so you can photograph the same plants you initially photographed.)
5. Return to the class to compare the 2 sets of photographs.
6. Discuss the Guiding Questions.

Guiding Questions:

During Predictions:
- What will happen to the garden over the next few weeks?
- How will it change?
- Why do you think that?
- Will this plant change? How? Why?
- What do the plants in the garden need?
- What if they do not get what they need? What will the garden look like then?
- Do you think it will get what it needs? How?
- What do the plants in the garden need?
- Who will take care of the garden?
- What will they do?

Comparing the Two Sets of Photos:
- How has the garden changed?
- What happened?
- Why did the changes happen?
- Was your prediction correct?
- Did the plants get what they needed?
- How did the plants change?