

Focus on: Lacewing Life Cycle

This lesson is meant to support the unit on Structures and Functions of Living Organisms. It can be done to generate background knowledge prior to teaching the unit, during the unit to reinforce lessons, or as a follow up to the butterfly unit to meet the objective of comparing a variety of animal life cycles. How you guide your students will depend on the information you have already taught and the information you want to introduce. Please remember that many gardens run on a yearly cycle and it will be easier to find more animals in the garden during the peak growing season.

Clarifying Objectives:

2.L.1.1 Summarize the life cycle of animals including:

- Birth
- Developing into an adult
- Reproducing
- Aging and death

2.L.1.2 Compare life cycles of different animals such as, but not limited to, mealworms, ladybugs, crickets, guppies or frogs.

2.L.2.1 Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways that they are different.

Key Vocabulary:

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Definitions can be found at <http://learnersdictionary.com>

- Summarize
- Life Cycle
- Birth
- Developing
- Reproducing
- Aging
- Death
- Compare
- Plant Parents
- Observed
- Appearance
- Variation
- Individuals
- Related
- Egg
- Larva
- Pupa
- Adult

Focus Question(s):

What is the life cycle of a green lacewing?

Materials:

School Garden

Garden Gloves to wear while exploring the garden especially if touching plants, soil, lifting pots, etc.

Science Notebooks

Activities:

1. Pass out the following article for students to read. (in groups or with partners): <http://blog.growingwithscience.com/2008/12/bug-of-the-week-lacewing-revisited/>
2. Watch the following video to learn about the larva stage of the green lacewing. It may also help with locating these creatures in the garden: <https://www.youtube.com/watch?v=fbRK6E5crbg>
3. Discuss the article and the video.
4. Tell students we will be visiting the garden to look for the different life cycle stages of the green lacewing. Remind the students that the green lacewing at all life cycle stages is VERY beneficial to our school garden since it eats aphids and other bugs that destroy our plants. Therefore, we will not bother them when we find them. We want to just observe them and leave them to do their work in the garden.
5. Ask: *What are some tips for helping us to find the most lacewings?* (Move slowly, speak quietly, be patient, look closely, etc.) Remind students they will have to look VERY closely in the garden to find the life cycles. Encourage students to look everywhere on leaves, under leaves on stems, etc. You will know when you find the eggs since they look like they are laid at the end of a hair.
6. Head to the garden to search for lacewings.
7. When one is found, there will be a rush of other students who want to see it too. Remind them to walk and take turns looking at it without pushing. We don't want to harm the people, the animals or the plants in the garden.
8. When students find a lacewing or one of the stages of its life cycle, they should sketch it in their student notebooks and write a bit about it.
9. When you return to the room, watch the following video. It will give you more information and show you the life cycle stages that you may have missed in the garden.
<https://www.youtube.com/watch?v=0zECnVZyYDI>
10. Discuss the video and the students' findings in their science notebooks from their visit to the garden. Use the Guiding Questions and encourage the use of the Key Vocabulary.
11. For more information: <http://bugguide.net/node/view/140>
12. FYI: Green Lacewings are GREAT to have in the garden! Many species of adult lacewings do not kill pest insects; they actually eat foods such as nectar, pollen, and honeydew. It is the lacewing larvae that devour 200 or more pests or pest eggs per week during their two to three week developmental period.

Guiding Questions:

- What stages of the life cycle did we find in the garden?
- Where did you find them?
- What did they look like?
- What did you learn from the videos or article?
- In what ways are the different stages the same?
- In what ways are the different stages different?
- How does this life cycle compare to other animal life cycles?
- Is this animal beneficial to have in our school garden? Why or why not?

