

Focus on: Isopod Identification

This lesson is meant to support the unit, Structures and Functions of Living Organisms after a lesson on sow bugs and pill bugs has been taught. It can be done during the unit to reinforce lessons, or as a follow up to the unit to increase the retention of information. 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 isopods during the peak or near the end of the growing season.

Clarifying Objectives:

K.L.1.1 Compare different types of the same animal to determine individual differences within a particular type of animal.

K.L.1.2 Compare characteristics of living and nonliving things in terms of their:

- Structure
- Growth
- Changes
- Movement
- Basic needs

K.P.1.1 Compare the relative position of various objects observed in the classroom and outside using position words such as in front of, behind, between, on top of, under, above, below, and beside.

K.P.1.2 Give examples of different ways objects and organisms move (to include falling to the ground when dropped): zigzag, round and round, back and forth, fast and slow.

Key Vocabulary:

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

- Compare
- Individual Differences
- Characteristics
- Living Things
- Nonliving Things
- Structure
- Growth
- Changes
- Movement
- Basic Needs
- Position Words – in front, behind, between, on top of, etc
- Zigzag
- Round and Round
- Back and Forth
- Fast and Slow

Focus Question(s):

How are the garden isopods similar to or different from the sow bugs and pillbugs we learned about in class?

Materials:

School Garden
Science Notebooks

Activities:

1. Review the characteristics of the garden isopod with the students. Allow them to use their science notebooks to help them remember.
2. Have students once again observe and explore the isopod, but this time, permit the students to gently hold the isopod. They can add additional information to their science notebooks.
3. Ask students to think about the characteristics of the sow bugs and pillbugs that they studied previously in class. Again they can refer to their science notebooks.
4. If students do not mention it, suggest doing the “roly poly test” to see if the isopod can roll into a ball. Some students may have already seen this behavior. If they haven’t, they can gently poke the isopod to see if it will curl up. If it can, then it is a pillbug (roly poly). If it can’t, then it is a sow bug. *How many of the garden isopods that we collected are pillbugs? How many are sow bugs?*
5. When you are finished with the isopods, you can release them back into the garden. They are considered a beneficial creature in the garden ecosystem because they eat the dead leaves which in turn makes the soil healthy. Sometimes they can be a pest in the garden because they can eat sprouting plants. Rarely do they cause a problem for established plants.
6. Read more about Roly Pollies <http://www.bugfacts.net/pillbug.php#.U09WRVVdXaI>
7. Share the following poem with your students:

“Pillbug” (Slater)

By Ann Smith

Sung to the tune of “Twinkle, Twinkly Little Star

Pillbug, pillbug small and grey

Hiding in the leaves all day

Birds can eat you

Lizards too

What’s a pillbug going to do?

Curl around and roll up tight

Until those animals are out of sight.

Guiding Questions:

- What characteristics of the sow bug is the same or different from the garden isopod?
- What characteristics of the pillbug is the same or different from the garden isopod?
- Do you think the isopod that you found is a sow bug or pillbug? How do you know?

- Do all of the isopods look the same?
- How are they different?
- How are they the same?
- Do you think they have the same number of segments?
- Are their bodies shaped the same way?
- Are they the same color?
- What does the isopod do when you place it in the cup?
- What does the isopod do when you pick it up?
- Why do you think they roll up in a ball? (If students are not sure, the poem at the end of the lesson will give them a hint.)