

Focus on: Earthworm Characteristics

This lesson is meant to support the unit, 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 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 earthworms 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):

What are the characteristics of the earthworm?

Materials:

School Garden
Science Notebooks

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

Hand shovel or trowel for digging

Bucket or gallon sized bag to hold the soil

Cups to hold the earthworms

Activities:

1. Play the following video song for the students, but do not show the video at first, just listen. The song will sing about characteristics of the worm and then ask, "What am I?" Stop the song (21second mark) and ask the students to predict what they think the animal is based on the characteristics. Then play the rest of the video to see if their predictions were correct. Replay the video showing the images the second time around. "I Am a Worm"
http://www.youtube.com/watch?v=trWCXshq_Uo
2. Tell students they are going to visit the school garden today to find earthworms in their natural habitat. Where should we look in the garden? If students do not say, "In the soil/dirt," then let them discover this when they begin their search in the garden.
3. Go to the garden to search for earthworms.
4. If students did not think to dig in the soil, let them look around the plants to search for worms, if none are found, lead them to think about looking in the soil.
5. Give individual students hand shovels/ trowels. Have them collect a scoop or two of soil and place it in their buckets. Caution them not to dig too close to the plants so they do not disturb the roots. Once the soil is in the bucket, they can sift through it to look for worms.
6. If no worms are found, put the soil back where it was found and collect some more.
7. If a worm is found, there will be a rush of other students who want to see it. Remind students to walk and take turns looking at it without pushing. We don't want to harm the people, the earthworms or the plants in the garden.
8. Once a few earthworms are found, give students a chance to observe them in their natural habitat.
9. Ask Guiding Questions to focus students on the earthworm's behavior and movement.
10. Ask Guiding Questions to focus students on the worm's structures.
11. Have students sketch their worm and record other information they feel is important.
12. When you are finished observing the earthworms, place them in the cups along with some moist soil so they can be brought back to the classroom for a closer look.
13. When observing them in the classroom, place paper towels in the center of each table. Place one worm at each table and encourage students to observe their movement. Give the students magnifying glasses to have a closer look. Using the guided questions, encourage the students to share what they observe.
14. Return the worms to the garden habitat. If you keep them longer, make certain the worms have everything they need in order to survive.

Guiding Questions:

- What color is the worm?
- Can you feel any bristles on the large worms?
- How do worms move?
- Do worms move forwards or backwards? How do you know?
- What does the worm do when you pick it up?
- Do worms have heads? Tails?
- Can you count the number of segments?
- Do you think they have eyes? Ears? Nose? Mouth?
- Do you think they help the garden? Why or why not?
- What does the worm do when you place it in the cup? Why do you think they do that?
- Using the magnifying glass, what do you see differently?