

Dig Into Decomposers

Grades: Elementary (3-5)

Key Words and Definitions

DECOMPOSITION	The natural breakdown of organic materials into simpler parts that can be cycled back into the ecosystem
DECOMPOSER	An organism that breaks down organic materials
ORGANISM	A living thing, such as a plant, animal, bacterium or fungus
SOIL	The outermost layer of the Earth comprised of clay, rock particles, and organic materials

Pre-Field Trip Activity: Soil Investigation

One 20-minute session; pre-visit

Learning Objective

Students will practice observational skills by investigating and documenting the components of soil samples.


Materials

- Soil – 1/4 cup per student (earth science soil samples featuring a variety of soil types work best for this activity)
- Soil container
- Paper plates
- Magnifying lenses
- Pencils
- Notebooks or other writing materials

Procedure

1. Explain to the students that they will be investigating what is in soil by making observations of soil samples. Ask the students what they think is inside soil and why, then write out a list of the things the students expect to find.
2. Then, pass out one paper plate and magnifying lens to each student, and place about ¼ cup of soil onto each plate. If using a variety of soil types, place a spoonful of each type onto the plate. Ask the students to use their magnifying lenses to observe the soil. What does the soil look like? What are the different colors and shapes in the soil? What do they think the soil is made of?
3. After writing their observations, encourage the students to draw what they see, and explain that this is a method that scientists use to make observations out in the field.
4. Collect the plates and ask the students to share with the class what they found in the soil. Compare student observations. Share with the class that they will be building on what they did in class during their field trip to Wave Hill, where they will be learning about the organisms (such as fungi, earthworms, and woodlice) that live in soil and help break down materials and nutrients.

Sources

-  [Soil! Get the Inside Scoop Teacher's Guide | Soil Science Society of America](#)
-  [University of Hawai'i PRISM Curricula | A Symphony of Decomposers](#)

Post-Field Trip Activity: Decomposer Creative Writing

One 30-minute session; post-visit

Learning Objective

Students will deepen their knowledge of a decomposer species by researching a decomposer they encountered at Wave Hill and writing a short creative writing piece about the organism.

Materials

- Decomposer Scavenger Hunt sheet (completed during the Wave Hill field trip)
- Laptop or other research materials (books, etc.)
- Notebooks or paper to write on
- Pencils

Procedure

1. Ask students to reflect on their time at Wave Hill. Did they find any interesting decomposers or learn any new facts? Examples of decomposers they may have encountered on the trip include:
 - Woodlice (also known as pill bugs and roly-polys)
 - Fungi (their mycelial networks underground and/or their fruiting bodies above ground, known as mushrooms)
 - Millipedes
 - Earth worms
 - Slugs
2. Hand the students their filled-out Decomposer Scavenger Hunt sheets from their visit. Then, tell the students that they are going to research 3-5 facts about an invertebrate they found at Wave Hill (they can refer to the Decomposer Scavenger Hunt sheets to remember what they found) and that they will be using those facts to write a creative writing piece about their decomposer.
3. Research can be done as homework or time can be provided in the classroom. During the research period students should write down the facts they find as well as the source of the information in their notebooks.
4. After their research, have the students write a short story about their decomposer using the facts they have learned from their research.
5. Provide the class with one or more creative writing prompts, such as:
 - Write about a day in the life of your decomposer.
 - Your decomposer falls asleep and begins to dream, describe what they dream about.
 - Write about your decomposer's first day in decomposing school.
 - You wake up one day and you have turned into a giant decomposer. What do you do?
 - Your decomposer is a secret chef at a five-star restaurant. What do they cook?
6. At the end, ask the students to share their stories with their classmates.



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