

3<sup>rd</sup> Grade 4<sup>th</sup> Day  
Science Literacy Connection 2

## Living and Nonliving Things

**Standard 2:** Students will understand that organisms depend on living and nonliving things within their environment.

**Objective 1:** Classify living and nonliving things in an environment.

**Objective 2:** Describe the interactions between living and nonliving things in a small environment.

## Writing about Insects

**Description:** The Third Grade Informative/Explanatory Writing Rubric will be used to aid students as they choose an insect to write about.

### Materials:

Text (any of the following)

- *Hey Little Ant* by Phillip and Hannah Hoose
- *One Hundred Hungry Ants*, by Elinor J Pinczes
- *A Remainder of One*, by Elinor J. Pinczes
- *The 512 Ants on Sullivan Street*, by Carol A. Losi

Copy of the rubric

Reference materials (Internet, insect books, encyclopedias)

### Procedures:

1. Read the book to the students and discuss which parts of the book might be factual information about ants and which parts may be imagined.
2. Compare the book to the expository reading (below) about ants.
3. Ask students to choose an insect and write about it. They should describe:
  - a. The environment the insect needs
  - b. How the insect behaves
  - c. The life cycle of the insect
  - d. Interesting facts
4. Use typical rough draft and rewrite strategies for the final paper.



### Ants: Interesting facts

- There are more than 12,000 species of ants all over the world.
- An ant can lift 20 times its own body weight. If a third grader was as strong as an ant, she would be able to pick up a car!
- Some queen ants can live for many years and have millions of babies!
- Ants don't have ears. Ants "hear" by feeling vibrations in the ground through their feet.
- When ants fight, it is usually to the death!
- When **foraging**, ants leave a **pheromone** trail so that they know where they've been,
- Queen ants have wings, which they shed when they start a new nest.
- Ants don't have lungs. Oxygen enters through tiny holes all over the body and **carbon dioxide** leaves through the same holes.
- When the queen of the colony dies, the colony can only survive a few months. Queens are rarely replaced and the workers are not able to reproduce.

Although ants are frustrating when they get into your home or when you're having a picnic, ants do help the environment. They are social insects, which means they live in large colonies or groups. Depending on the species, ant **colonies** can consist of millions of ants.

There are three kinds of ants in a colony: The queen, the female workers, and males. The queen and the males have wings, while the workers don't have wings. The queen is the only ant that can lay eggs. The male ant's job is to **mate** with future queen ants and they do not live very long afterwards. Once the queen grows to adulthood, she spends the rest of her life laying eggs! Depending on the species, a colony may have one queen or many queens.

Ant colonies also have soldier ants that protect the queen, defend the colony, gather or kill food, and attack enemy colonies in search for food and nesting space. If they defeat another ant colony, they take away eggs of the defeated ant colony. When the eggs hatch, the new ants become the "slave" ants for the colony. Some jobs of the colony include taking care of the eggs and babies, gathering food for the colony and building the anthills or mounds.