Ant Farm Observation Activity

Intended Audience: First Grade

Based on: *How to Walk an Ant* (Derby, 2019)

I. Introduction

How to Walk an Ant (Derby, 2019) introduces students to basic ant morphology and behavior through the whimsical story of Amariyah, an expert ant walker. Having introduced ants through a presentation and discussion of this book, the class can set up and maintain an ant farm for observing ants. This activity is fairly straightforward and offers students the opportunity to learn many skills, information about ants, and explore how entomologists do their work.

This lesson on ant observations can be used to emphasize:

1. care of others: recognizing, understanding, and meeting the needs of others (here, ants)

2. teamwork: in setting up and maintaining the ant farm and in making observations and bringing together all observations into a report (sharing responsibility)

3. making observations: paying close attention, recording observations, and communicating those observations to others

4. introductory entomology (or myrmecology, specifically about ants) and work that entomologists (myrmecologists) engage in to study ants

II. Setting up an Ant Farm

Obtaining all the materials and resources for setting up an ant farm is fairly easy and relatively inexpensive. The Nature Gift Store (*Live Ants, Ant Farm Kits & Ant Farm Supplies for Sale*) provides several options for the farm as well as how many ants. They also have a resource guide, *Ants* (Stewart, 2010; can be obtained from other booksellers).

The ants typically used are a large, “harvester” ant species and are workers only. These ants will live for a couple of months, enough time for this activity.

III. The Plan (These are suggestions. Teachers should modify this plan to fit their own situations and students.)

1. Set-up and Maintain Ant Farm

    a. The Teacher should obtain all the items to set up and care for the ant farm.

    b. Introduce the students to the ant farm idea in advance of setting it up. Emphasize that entomologists maintain colonies of ants to study in laboratory settings. Ant hobbyists also do this, spending much time and money collecting queens and starting their own colonies. (*Ant Keepers*, n.d.)

    c. Introduce the students to the activity and divide the class into teams who will take turns to maintain and observe the ants. Teams could have these responsibilities for a week at a time or other time period that works for the teacher and class situation.

    d. Introduce the Observation Report tool (section V of this document). This is a simplified form of what myrmecologists do.

e. When the materials arrive, the students should be involved in unpacking and identifying the components so they are intimately involved in what the ant farm is, how it will work, what they will do to maintain it, and how they will do their observations.

f. Use the teams to set up aspects of the ant farm.

2. Individual Observations

a. Once the farm is set up, the teams will begin their work: checking the ants, making some observations, and sharing with the class each day or at the end of the week.

b. The team will record their work on the Observation Report each day. The teacher should help with this but let the students do as much as they can.

c. The number of ants should be monitored and counted.

3. Final Report

a. When all the teams have had a chance to make observations, the individual reports can be evaluated and summarized. This can be done with the whole class using a blackboard or other tool for helping students organize the material.

b. The teacher can facilitate putting this summary in a scientific report form citing some literature, such as Stewart's *Ants*.

c. Include any measurements taken, like how many ants at the start, changes in ant count over time, and how many were present at the conclusion of the

activity. Temperature is another easy-to-get measurement and will affect the ant behavior.

d. Include student drawings or photographs to illustrate the observations.

e. From this more formal report, the students might write their own ant book considering what ants are like and how their observations compare to the book, *How to Walk an Ant*.

IV. References

Ant Keepers. (n.d.). DesertUSA. Retrieved January 20, 2021 from https://www.desertusa.com/insects/ant-keepers.html

Derby, C. (2019). *How to Walk an Ant*. Roaring Brook Press.

Live Ants, Ant Farm Kits & Ant Farm Supplies for Sale. (n.d.) Retrieved January 20, 2021 from https://www.nature-gifts.com/shop/ant-farms/.

Stewart, M. (2010). *Ants*. National Geographic Kids.

V. Resources

Observation Report: Prepare sheets of this report form or something similar for students to record their particular observation. The class can then summarize this information in a final report.

Observation Record

Basic Information

Names of Observers:

Date and Time of Day of Observation:

Teacher and Class/Grade:

Duration of Observation:

What did you do to care for the ants?

Observations

1. Describe what you observed? What were the ants doing?

2. Were any ants interacting with other ants? How? Did they touch each other with their heads, antennae, jaws, legs?

3. How many ants were present? How many ants were doing each activity observed? How many ants were interacting?

4. How many times was each behavior observed?

5. Draw some pictures of what you observed.