

## 1.4.8 Participating in a Citizen Science Project (Invertebrates)

### Overview

Citizen science uses the power of the Internet to connect ordinary people to the work of scientists. By organizing many people to make observations, scientists gather more data and are able to learn more about the subject they are studying. For example, non-specialists have been instrumental in studies of invertebrates by making observations in local parks or their own backyards. Common terrestrial invertebrates under study are bees, ladybugs, and monarch butterflies in migration. Citizen scientists can help discover trends in our natural ecosystems, including the ocean.

### Learning Objectives

- Students can meaningfully contribute to scientific research.

### Student Activity: Participating in a Citizen Science Project (Invertebrates)

#### Materials

Access to the Internet and a resource for current Citizen Science projects

#### Advance Preparation

Explore Citizen Science project lists on the Internet.

#### Process and Procedures

1. Explore Citizen Science projects that you find on the Internet. Read about the organizations that sponsor different projects. Decide on a project that involves marine invertebrates and discuss your ideas with your teacher. Things to consider as you make your decision:
  - How reputable is the sponsoring organization? Are you interested in their mission?
  - Are you able to make the observations necessary to help the study?
  - For what period of time do you need to participate?
2. Once you have made the decision to participate in a particular project, follow the protocols set by the organization that is sponsoring the research study. Spend the required time to make the observations needed for the project.
3. Report your findings to the organization.

#### Assessment

Write a summary of the project, your observations, and explain how ordinary citizens are contributing to the study in which you participated.

## Expected Outcomes

**What's the take-away?** Often students think of science as a mysterious subject that, at times, can be difficult to comprehend. In reality, science is an ongoing, evolving body of knowledge and a reflection of our collective (and current) understanding of the world around us and how it works. When students see themselves as part of “science” they are better able to make a more personal connection to the concepts they are studying.

### **What does the student work product look like?**

Students should each produce a written summary of their experience. Look for student work to address the following:

- Background on the project:
  - sponsoring organization
  - goals or objectives
  - length and location
- Description of their participation in the project:
  - why they chose this project.
  - physical actions they took in support of the project
- Reflections:
  - what they learned from their experience
  - significance of citizen science projects