

DURING YOUR VISIT TO THE GARDEN...

Lesson Ideas for Grade 4

Activity #3: Exploring an Ecosystem

Objectives:

Students will observe the biodiversity present in the garden, taking note of evidence of the food web. Students will observe and classify the living and nonliving components of the garden ecosystem.

Materials:

Picture of Koi fish

Field observation sheet

Before you go:

1. Before leaving for the field trip, explain to students that they will be taking field observations of the plant and animals present at the Japanese garden.
2. Remind students that Koi fish are **omnivores** and that they will be feeding them pellets made of both plant and animal protein. Show students the image of a Koi fish mouth. Explain that Koi fish feed by sucking things from the bottom of a pond or stream. Ask students to brainstorm what kind of things Koi fish might eat in the wild (algae, larvae, insects, plant matter that has fallen to the bottom of the pond). Then have students think of **carnivores** that might eat a Koi fish (cranes, raccoons, hawks, weasels, etc.).
3. Explain to students that even though the Koi fish they will be observing today are not wild fish, there are still a lot of other animals (including insects) in the garden that they can observe. This variety of animals is called *biodiversity*. The garden *ecosystem* consists of all the plants and animals within the garden, and the different habitats (homes) that they live in. Remind students how plants and animals depend on one another (as in the food web).

At the garden:

4. Before you begin your garden activity, give the students an opportunity to explore the garden, including the koi. Remind them to look for some of the things you've been talking about in the classroom (plants, animals, herbivores, etc.)
5. Once students have had an opportunity to familiarize themselves with the space, have students complete the field observation sheet (or create their own using science journals) by identifying and classifying the living and non-living components present in the small garden ecosystem. As they look closely at the parts of the ecosystem, ask them to also document any

evidence of the food web they observe at the field site. (This could be a squirrel eating a seed, or a bird eating an insect, etc.) For this part of the lesson, you might consider having students work in pairs.