



**CENTER FOR
INVASIVE PLANT
MANAGEMENT**

Lesson:

Where Do Weeds Grow Best?

Ages:

6th-8th grade, 9th-12th grade

Time:

Walk: 15-30 minutes

Initial Activity: 1 hour

Observations: 5-10 minutes every few days

Conclusions: 1 hour

Overview:

Students design an experiment to determine where weeds grow the best.

Goals:

Students will understand the optimum conditions for growing weeds and create solutions for preventing weed growth.

Objectives:

1. Students will be able to name two optimum conditions for weed growth.
2. Students will be able to describe two conditions that make it difficult for weeds to grow.
3. Students will design a scientific experiment.
4. Students will record and present their findings.

Materials:

Per student or group:

5 wide-topped pots

Native plant seeds

Weed seeds

Keys to local weeds and native plants

Observation Sheet

Outline:

1. Design and create three experimental pots.
2. Observe plant growth and record data.
3. Present findings to class.
4. Create solutions to prevent weed growth

Details:

Discuss with the class why invasive plants are a problem from both ecological and economic perspectives. Next, discuss the conditions under which weeds grow best and the competitive advantage weeds have over native plants. Also discuss the Scientific Method (Observe, Question, Hypothesize, Experiment, Analyze, and Conclude).

Next take a short walk around the schoolyard to observe where weeds are growing and under what conditions weeds are growing. Have the students take notes on the Observation Sheet.

In the classroom, students design an experiment and hypothesize which pot will grow the most weeds. Each student (or group of two or three) will have five pots. Two will be control pots; one will have only weeds planted in it, and the other only native seeds. Remind students that the same number of weed seeds should be planted in each pot (except the native seed control pot), but it is up to them what else is in the non-control pots. Students should create one other variable, such as number of native seeds per pot, or watering conditions.

As the seedlings begin to sprout, students should record their data on the Observation Sheet and create a graph to illustrate the results. (This is the analyzing section of the Scientific Method).

Wrap-up/Evaluation:

Students should present and compare their conclusions with the rest of the class. By looking at all of the experiments, students should be able to describe an optimum weed environment.

Next, have the students describe, either orally or in writing, ways people can make the environment less attractive to weeds.

Modifications:

Rather than presenting their findings to the class, students can write a paper describing their experiment and the results.

Have the students compare the pots where weeds grew best with areas around the schoolyard. Is there disturbed land in which weeds flourish? In more heavily vegetated areas are there fewer weeds? Students can map the area around the schoolyard, denoting what types of plants (native or weeds) grow in specific areas. Next, the students can come up with plans to make the weedy spaces less inviting for invaders.