

**Center For Invasive Plant  
Management**

**Lesson:**

Are There Weeds Here?

**Ages:**

3<sup>rd</sup>-5<sup>th</sup> grade, 6<sup>th</sup>-8<sup>th</sup> grade

**Time:**

Initial activity: about 40 minutes (depending on proximity of soil gathering area) Follow up: 5-10 minutes every few days

**Overview:**

Students gather soil, observe whether or not weeds sprout, and record results.

**Goals:**

Students will discover how abundant weed seeds are in the soil bank, and how easily they sprout under the right conditions.

**Objectives:**

1. Students will be able to record germination and plant growth.
2. Students will be able to calculate possible seed growth in an area near their school.
3. Students will create a graph and be able to present the results of their findings to their peers.

**Materials:**

*Per student or group:*

Trowel  
Wide-topped pot  
Potting soil  
Observation sheet  
Field guide to local weeds

**Outline:**

1. Students gather soil from outside.
2. Students spread the soil in pots filled with potting soil.
3. Observe the soil and record growth.
4. Present findings to class.

**Details:**

Have the students work independently or in groups of two or three to gather soil from a nearby natural area. They should scrape the top inch or so of soil from a four inch square plot. The soil should not be

next to or underneath any weeds. To make sure any plants are not sprouting from last year's rootstalks, try to remove all roots, stems, and bulbs that can be found.

Spread the soil on top of the pots filled with potting soil and water. Be sure to label the pots so students know which is theirs. Observe the pots for several weeks or months and record observations on the Observation Sheet provided. When plants are big enough to identify, record the plants' common and Latin name. Have students distinguish between common and native species.

**Wrap-up/Evaluation:**

Have the students graph the total number of each species that germinated on the Observation Sheet and present their findings to the rest of the class. Discuss whether it mattered where the soil was gathered and compare results. Discuss whether there were more natives or invasives. How did germination and growth of natives compare to invasives? How might the ratio of invasives to natives change over time? Students can also extrapolate how many weeds can grow on a larger plot of land by multiplying their findings.

**Modifications:**

After the first batch of plants have sprouted, students may want to pull the plants (and dispose of the weeds carefully so they do not spread further) and see if more plants will grow out of the soil in response to increased sunlight and space. If new plants do germinate, are they the same kinds of different?

**Extensions:**

Discuss control methods and experiment with them in the natural area selected above. Repeat this activity at the same time each year to see if control actions affect results.