

# Weeding, Writing, and Arithmetic

## Description

Students maintain a weed and nonweed section of a garden bed.

## Objective

To explore and observe weeds in the garden.

## Materials

A dug and fertilized garden bed  
String  
Life Lab journals  
Crop seed for one bed: bush beans or radishes



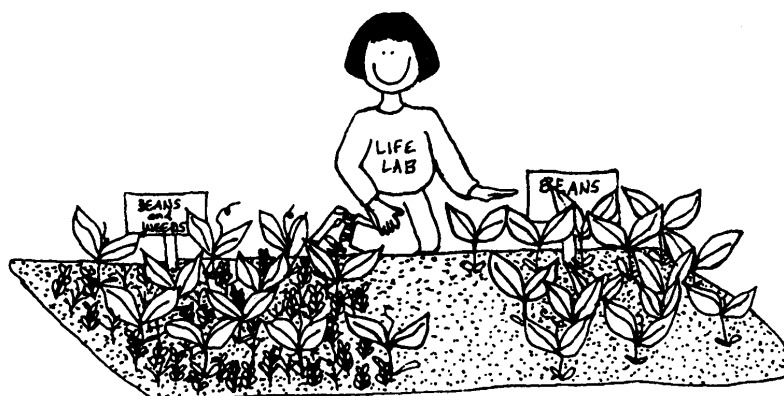
Weeds are just plants that grow wherever we don't want them to grow. They are often faster growing and heartier than the plants we plant. They compete for space, nutrients, and sunlight. But weeds can help gardeners in several ways. Some weeds, such as pigweed, have deep roots that transport nutrients from the soil. These weeds add valuable nutrients to the compost pile. Some weeds have powerful roots that break up and aerate the hard soil. Other weeds attract pests that would otherwise nibble on our crops. And some weeds attract insects that feed on still other pests. For example, the green lacewing, whose larvae devour many pests, feeds on the nectar of nettles, lamb's-quarters, and dandelions. Finally, some weeds are edible, such as pigweed, mustard, purslane, lamb's-quarters, and dandelion greens. Weeds can also be beautiful plants. The poet Walt Whitman described one familiar weed in this way: "Innocent, golden, calm as the dawn/The spring's first dandelion shows its trustful face."



Have students follow the steps below to see just what weeds are and how they affect other crops.

1. Plant seeds in straight, spaced rows so that you know where your plants are supposed to come up.
2. Divide your planted bed into two sections: weeding and nonweeding. (A small nonweeded section may easily be added to any garden, although it would be best to separate the sections by several feet.)
3. Make signs for each section: Beans With Weeds; Beans Without Weeds.

4. Draw pictures in your Life Lab journal predicting what each section will look like.
5. Keep one section weed free. In the other section, weed until the first time true leaves appear on the plant, then stop weeding and let everything grow. Water both sections the same amount.



6. In your Life Lab journal, keep a chart of the weekly growth of your crop plants and your weeds. You might also tie a string like a tight rope three inches above the ground and see whether weeds or crops reach it first.
7. Try to identify what kinds of weeds you have. This will be easier as they develop and flower. Possibilities include: lamb's-quarters, red root pigweed, dandelion, mustard, purslane, black-eyed Susans, buttercups, white clover, nettles, yarrow, sorrel, milkweed, crabgrass, cocklebur, and wild morning glory.
8. Give the number and name of any insects you see on your crops and on the weeds. Do weeds attract insects away from your crops?



When the crops are harvested and the charts are completed, the class can discuss several questions. Do weeds grow faster than other crop plants? Do weeds affect the growth of crop plants? Do weeds affect pests in the garden?



1. Some garden stores sell packets of dandelion seeds. Students might grow some of these and compare them with dandelions that pop up uninvited. These cultivated dandelions usually have larger and thicker leaves than the weed form. Tender leaves may be added to mixed green salads or thick leaves may be boiled as greens.
2. Discuss how weeds get in soil. Have students try growing the stickers in their socks after a walk through a field or overgrown empty lot. Or have them try growing the dandelion parachutes. Discuss other ways in which weed seeds might travel.