



teacher exercise: **Spacing Challenge**

overview

A **teacher exercise** outlining the steps to layout a garden design to appropriately space plants to allow for optimal growth.

objectives

Teachers will learn:

- to practice the skills necessary to interpret the information in a seed catalogue.
- to introduce the steps involved in creating a planting plan with particular attention to the quantity of plants and spacing requirements.

materials

- Seed Catalogues
- Butcher Paper
- Pencils or Markers
- Rulers

scenario

When planning a planting plan for a school garden, it is necessary to familiarize yourself with the plants you plan to include. Plants require different amounts of space to mature and the school garden practitioner must consider this when accounting for quantities and the layout of the plants to be included.

Your principal has requested that the school garden include a “plant parts salad” garden that can be harvested and prepared into a salad before the end of the school year by each of the two 3rd grade classes in the two 3’ x 9’ raised planting beds they maintain.

Your task is to consider the plants that should and can be included to yield a garden representing all plant parts (roots, stems, leaves, flowers, fruits, and seeds), to refine the list to plants that can be grown in the spring season, and to determine the quantities of each and appropriate layout possibilities to yield a small salad for each of the students in the two 3rd grade classes (25 students in each class).

Complete the following steps to satisfy the request:

- **Create a plant list.** Brainstorm and develop a list of all plants typically found in a leafy greens salad. Browse a seed catalogue and cross reference plants that you find in salads on restaurant menus.
- **Categorize the wish list** into the edible plant parts they will produce (roots, stems, leaves, flowers, fruits, seeds).
- **Identify plants in each plant part category** that grow in the cool season (April through June).
- **Select one plant from each category** to serve as the representative of each plant part category and will combine well with the other representatives to make a delicious salad.



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scenario *(continued)*

■ **For each plant**, estimate how many will be necessary to create a small salad to be served on a 6" diameter salad plate and that includes an appropriate quantity or portion of each of the plant parts. (*Ex. Each plate will need approximately eight lettuce leaves, 50 salads will require 400 leaves, each lettuce plant typically yields 25 leaves, gardens will require 16 lettuce plants total*).

■ **Using the seed catalogue** or other appropriate references, determine the spacing requirements of each of the plants. Plants need room around them to develop properly. Most seed catalogues provide this information.

■ **Using the spacing requirements and quantities of each plant in your plan**, begin to plot out positions for the plants on the butcher paper. Cut the butcher paper to 3' x 9'. If a plant requires 4", draw circles with a 4" radius to represent the space the plant will occupy. You do not need to leave space between each plant's foot print. This step usually requires adjusting, so you may consider cutting out circles of the various diameters which allows you to manipulate the layout until you are satisfied and include all the plants necessary.

■ **When planting**, aim to follow this arrangement for optimal results.