

School Garden 101
Session 2
Agenda

- 3:30 Welcome
Collect documentation for completed assignments – ask two people to share about their assignment
Q & A about last week’s session?
- 3:50 Lesson: Your Garden Soil
- 5:00 Break
- 5:15 Discussion: Your School Garden Goals
- 6:00 Close

School Garden 101
Session 2: Your Garden Soil
Lesson
(70 minutes)

- I. Physical composition of soil and how it impacts plant growth
 - a. soil horizons
 - b. soil texture
 - i. soil texture triangle
 - ii. does topsoil = loam?
 - iii. determining soil texture – demonstration
 - c. soil structure
 - i. how we improve or destroy structure
 - 1. tillage
 - 2. compaction
 - 3. organic matter
 - ii. destroying soil structure – demonstration

- II. Supporting a healthy soil ecosystem
 - a. Youtube videos (2) on soil biology – Terry Tollefson
 - i. Extracting Soil Microfauna: <http://www.youtube.com/watch?v=TCenRcKbf7U>
 - ii. Soil Biology (Microfauna):
<http://www.youtube.com/watch?v=VuHznslr8aI&feature=related>
 - b. feeding your soil
 - i. cover crops, compost, organic mulches

- III. Soil nutrients
 - a. testing your soil
 - b. soil pH
 - c. essential nutrients for plant growth
 - d. fertilizer basics

- IV. Preparing your garden site for the first time

Publications provided:

UMaine Cooperative Extension bulletin 2288: Soil Organic Matter
UMaine Cooperative Extension bulletin 2286: Testing Your Soil
UMaine Cooperative Extension bulletin 2281: Lead in the Soil
UMaine Cooperative Extension bulletin 2510: Guidelines for Using Manure on Vegetable Gardens
MOFGA fact sheet # 1: An Organic Farmer's Guide to the Interpretation of a Standard Soil Test from the University of Maine
MOFGA fact sheet # 11: Natural Sources of Plant Nutrients
soil texture triangle
pH nutrient availability chart
UMaine Analytical Lab soil test form and box

Recommended additional references:

Tugel, A.J., A.M. Lewandowski, and D. Happe-vonArb, eds. 2000. *Soil Biology Primer*. Ankeny, IA: Soil and Water Conservation Society.

Lowenfels J, Lewis W. 2006. *Teaming with Microbes: A Gardener's Guide to the Soil Food Web*. Portland, OR: Timber Press

School Garden 101
Session 2
Discussion: Your School Garden Goals – Facilitator Reference Sheet
(45 minutes)

I. Large group discussion:

20 minutes

Today we talked about soil, which is the medium we all depend on for food and other land-based resources. Good soil helps great nutritious food grow; we want to create educational gardens where youth grow in a variety of ways. The lesson plans, projects, and discussions you have engaged with have surely given you new ideas about how gardens can be utilized as an educational tool.

As a large group, discuss the following questions; ask someone to take notes:

What garden activities can enable learners to

- use the garden for scientific and multi-disciplinary learning?
- contribute to the school food service program?
- gain confidence and enthusiasm for learning?
- acquire gardening and environmental stewardship skills?
- achieve other educational goals through active participation in the garden?

II. Small group discussion:

20 minutes

Break up into planning groups from the same school. Ask one person from each group to capture notes.

1. How will/does the garden support larger educational goals and values of the school?
2. How will/does the garden support the needs of the school cafeteria and food service?
3. Do some goals take priority over others? If so, how should this influence the design?
4. What do you want your school garden to look like? (Raised beds? Hoop house? Large plowed field?)
5. How will/do you meet the needs of students with disabilities or special learning situations?

III. Group wrap-up (the entire class comes back together)

5 minutes

1. Soil test boxes and forms – hand out to bring back next week
2. What is coming up next week: Growing Your Own Seedlings
3. What is due next week: School Group Tasks and Roles Worksheet
Germination chamber that was started on the first day, with journal

