

Plant it and watch it grow!

EDIBLE GARDEN PROGRAM (6-8)

Planting the Garden

(ILS 19 A and C, 21A and B, 11B)

Overview

The theme for this activity is, "Plant it and watch it grow!" And there is no better way for students to apply their knowledge of sustainable practices and gardening than to grow and cook their own food. Using the garden and kitchen as the facilitators, they will inspire student inquiry and teach them about Sustainable Agriculture, specifically, local food production and consumption.

For the purpose of this curriculum sustainable agriculture shall be defined as follows: "Sustainable Agriculture is a system of food production, supported by consumers, where farming operations, practices and technologies *work in harmony* with the natural systems that sustain life on earth."

Suggested Grade Level

This curriculum is designed for middle school/junior high grade levels. The topics covered can be built upon in complexity throughout that age range.

Approximate Time

The time for this activity will vary based on the size of the garden plot, but for 100 sq feet, it will take approximately 2 hours with 20 students.

Objectives

1. The students will transform a scaled garden drawing into the actual garden, laying out paths and beds.
2. The students will learn about soil preparation for growing plants and seed germination.
3. The students will have a hands-on experience working with fellow classmates to create a garden for which they will care for throughout the summer.
4. The students will learn to be considerate of other gardeners and property through tool safety.

Activity Abstract

Students will prep their garden soil, then construct and plant the garden after reviewing garden tool and knife safety.

Background Information

Planting the garden allows the students to apply the garden plan created in Planning the Garden Activity. Be sure that the garden size is kept small - 100 square feet is fine for a class of 20 children. Have the soil rototilled or cultivated once before the children begin,



otherwise much time is consumed cultivating and teaching the children how to use a shovel on untilled soil. The students can learn how to turn the soil by working the compost or soil amendments into rototilled soil.

There will be "teaching moments" throughout the garden planting session. Stop when ever you can to address them. If you learned about composting earlier in the year, then discuss it as the children are adding the soil amendments to the soil. Soil amendments provide additional organic matter to the soil, which in turn improves water drainage and provides minerals and nutrients for healthy plant growth.

The optional weedblock matting is a plastic material and for some it may not be viewed as an appropriate sustainable agriculture material. It is recommended for use in this project to keep the garden maintenance to a minimum during the summer months when volunteers will keep the garden going. This is a good opportunity to discuss the raw material used to make plastic (oil) and review renewable verses non-renewable resources. You may suggest to the children that hopefully the matting can be reused next year (recyclable vs. reusable materials).

The students will also need to learn about planting seeds, seed depths and seed and row spacing. This information is available on the seed packets, and if followed, the germination will be good. A "garden specialist" to assist with this Activity is a tremendous asset.

It is suggested that only warm season crops be planted so that most produce is ready to harvest when the students return in the fall. It is not recommended to plant the following produce: lettuce, radishes, spinach, broccoli, peas, and the like. These cool season plants will be ready for consumption during the middle of the summer, when the students are not around to prepare them.

Materials

- Rototiller
- watering cans
- cedar bark mulch
- Weedblock matting (optional)
- shovels
- trowels
- organic seeds and/or plants
- metal rake
- pocket knives
- gloves
- hammer
- wooden stakes (one for each corner in the garden)
- small stones
- garden plan
- twine
- wheelbarrows
- compost or soil amendment
- 1:6 adult:student ratio
- Garden Journal in weather proof container. pencil



- scissors

Set-up

Have garden rototilled prior to beginning the activity and organize all materials for easy access by students.

Gather all of the tools and materials and arrange around garden area so students can access them without getting in each others' way.

Procedure (Session 1)

1. **Tap prior knowledge.** Review the sustainable agriculture concepts the students have studied, such as soil conservation, that you will put into practice in the garden. Review the garden plan.
2. Walk to garden.
3. Discuss community garden etiquette and talk about tool and knife safety (See sidebar).
4. Divide class into three groups.
5. **Hands-on experience.** Group 1 will be the Engineers. They will lay out the paths from the garden plan. Using stakes to mark each corner, they will tie twine to make paths and borders.
6. Group 2 will be the Compost or Soil Amendment Managers. They will put the soil amendments on the garden beds. A soil amendment is any material that is put in the soil to improve its characteristics. Adding fertilizers increase nutrient levels, adding sand in a clay soil improves drainage, and adding compost increases the organic matter.
7. Group 3 will be the Soil Turning Stewards. They will turn the soil amendments into the soil.
8. Students who have finished early can use the scissors to cut the weedblock matting to shape and then use small stones or soil to affix it in place. Discuss sustainability issues.)
9. Re-divide the class into four groups and assign an adult to each.
10. Give each group a mix of seeds and transplants to plant. They should punch holes in the weedblock matting to plant – the holes should be fairly small so that weeds don't grow, but large enough for the plant to fit.
11. Students who finish early can start watering newly planted plants.
12. As more students finish they can spread mulch on top of the matting.
13. **Debrief the experience.** Was it fun? What would they do differently? What will they need to do to care for the garden this summer? (Water, weed, etc.)
14. **Conclusion/Wrap-up.** Have the students write in the garden journal. Leave the journal and a writing utensil in the garden in a waterproof plastic bin.
15. **Follow-up.** The class will need to return to the garden at least once a week for maintenance, etc., until the end of the school year. (Then, families will take over; see the Summer Maintenance activity.)

Garden tool safety and care guidelines!

1. Only one student use a tool at a time.
2. Put the unused tools back where they belong.
3. Place all rakes and shovels with the point end down so they can't hurt someone if accidentally stepped on.
4. Only use pocket knives if students have been appropriately trained before this Activity.
5. When done gardening, be sure that all tools are wiped free of dirt and debris. This will allow the tools to last for years.



Extensions (optional)

Make signs for the garden that label the types of plants, laminate them, and put them in the appropriate place in the garden.

References

1. Edible Schoolyard website, www.edibleschoolyard.org
2. The Garden Book, Section 2, "Tooling Around", pg.41 and "To Plant a Garden of Your Own", pg. 48.
3. Online seed catalogue, <burpee.com>