

How do we transplant our pumpkins into our garden?

## **PROJECT PUMPKIN (gr 3-5)**

### **Planting the Garden**

**(ILS 19A, 17A)**

#### **Overview**

This curriculum explores the relationship between people and the food they eat. By growing pumpkins in a garden plot, the curriculum takes teachers and students through six features of sustainable agriculture that separate it from conventional farming. If the entire curriculum is completed, students will gain an understanding of sustainability and people's place in the food chain.

Sustainable Agriculture, for the purpose of this curriculum, shall be defined as "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 3rd through 5th grade levels. The topics covered can be built upon in complexity throughout that age range.

#### **Approximate Time**

Depends on the size of your garden, probably at least 60 minutes. Make sure you are planting at the appropriate time of year for your plants and location – check the seed packets!

#### **Objectives**

1. The students will transplant their seedlings into their garden!

#### **Activity Abstract**

In this lesson, the students will use their garden plan map to plant their seeds and seedlings.

#### **Background Information**

The best information on how, when and where to plant seeds is on the seed packet! Be sure to get them in plenty of time to read and prepare.

#### **Materials**

- Garden space
- Map of garden plot (from previous lesson)
- Seedlings (from Greenhouse activity)
- Seeds to be direct planted
- Stakes to mark pathways



- Twine to mark pathways
- Compost
- Kids gardening gloves for each student (optional)
- Hoes, trowels and cultivating claws – as many as you can afford or get donated by families.
- Straw – 1 bale for every 25 sq. ft. of garden space that needs to be covered.
- Weed-blocking plastic mats (optional but strongly recommended because it will make weeding easier later on!)
- Scissors for each adult
- Rulers
- Watering can(s)
- Source of water (hose, spigot)
- Wheelbarrow to carry it all (optional)
- Extra adults to help!

### **Set-up (optional)**

Prior to starting this lesson, have the garden plot rototilled. This will work the cover crop from the Nutrient Management activity into the soil. Using the garden map, mark the paths by putting stakes along the way and connecting them with the twine. The paths should be about a 18 inches wide so people can walk without tripping on them! If the students are old enough have them install the walkways using the garden map. This is a good math lesson.

Pumpkins are heavy feeders. They will thrive in rich soil containing lots of seasoned manure and compost. Prior to planting prepare a bed rich in compost, seasoned manures and nutrients.

### **Procedure (Session 1)**

1. **Tap prior knowledge.** Ask the students if they remember the garden plan that they chose. Show it to the class and review the plan. Review the Nutrient Management experiment as well.
2. Walk to the garden plot, bringing the seedlings, seeds, and all other supplies.
3. If the students are old enough have them install the walkways using the garden map. This is a good math lesson. Otherwise show the class the paths that you've prepared and make sure they understand how the map matches real life. Also make sure they understand that they should only walk on the paths!
4. Demonstrate the procedure for transplanting a seedling. This involves digging an appropriately sized hole, taking the plant out, putting it in the hole, filling it in with soil, and patting it down firmly but not roughly. Make sure that the soil level is right at the same place where it was when the plant was in the pot – you don't want to bury the stem or expose the roots. To remove the plant from the pot, hold the plant by putting two fingers around the stem. Turn the pot over and push it so the dirt mass gets separated from the pot, and lands in your hand.
5. **Hands-on experience.** Have students put straw on the paths. (It will help prevent weeds from growing there.)



6. If using the weed block mat, cut it and place it in the garden. Have students use handfuls of dirt to secure the edges so it doesn't blow away.
7. Have students place pumpkin seedlings where they will be planted. Remember to use the seed packet guidelines about spacing the plants – students should use the rulers to measure.
8. Have students work in pairs to plant the seedlings as you demonstrated. If using weedblock mat, have an adult use the scissors to puncture an appropriately-sized hole where the plant will go.
9. Plant seeds for direct seed plants. Again, have the adults puncture holes in weedblock mat, and make sure students know the appropriate seed spacing and depth from the seed packet. (Adults will need to help keep this straight.)
10. Place straw in any places that have no weedblock mat and are open. Straw will help prevent weeds from growing, but it may also prevent your seeds from growing!
11. Water the plants before leaving.
12. **Conclusion/Wrap-up.** Look at all you've done and congratulate yourselves on planting your garden!

### **Procedure (Session 2-?)**

1. You will need to monitor your garden at least once a week! When you go:
  - Check if the plants have gotten enough water from rain, and water them if necessary. Newly planted seeds require daily light watering and transplants should be watered about every other day. When the plants are established they should receive at least an inch of water per week. A rain gauge might be a great addition to the garden!
  - Remove weeds that manage to grow through the straw, weedblock mat, or grow in other places. Try to get the roots!
  - Watch for insects (or other animals) that eat the plants! If you find any bugs on the plants, make sure you research how to get rid of them!
  - Monitor growth progress – are things ready to harvest?
  - Troubleshoot – this may involve staking plants that are falling over, dealing with pests, etc.
  - Fertilize if desired, following instructions on package.
2. Good luck!

### **Extensions**

Have the class make signs that tell what types of plants are growing. Laminate them and put them in the garden in the appropriate places.

