



Seed Saving

Lesson Description

In this lesson, students learn more about seed saving. Students participate in a seed saving activity to learn all of the steps in the seed saving process. An Elder guest instructor discusses the importance of seed saving and the local practices for saving seeds.

- Time required: 60 minutes
- Location of lesson: Classroom or garden

Learning Objectives

- Describe the purpose of seed saving.
- Identify the steps involved in seed saving.
- Describe local practices for seed saving.
- Recognize the difference between self-pollinating and cross-pollinating.

Materials and Preparation

- 5-8 large tomatoes for preparation prior to the class
- Seeds prepared 5-6 days before the class (see **Lesson Preparation: Seed Saving Instructions**)
- Seeds prepared 2-3 days before the class (see **Lesson Preparation: Seed Saving Instructions**)
- Large tomatoes for in-class use; 1 per group of 2-3 students
- Plastic knives; 1 per group of 2-3 students
- Plastic spoons; 1 per group of 2-3 students
- Small plastic cups; 1 per group of 2-3 students
- Paper towels
- Access to water (a sink or a jug of water)
- Plastic-wrap
- Strainer
- Paper plates; 1 per group of 2-3 students
- Wax paper
- Envelopes for seed saving; 1 per student
- Crayons
- Invite an Elder to join the class and discuss the importance of seed saving and local practices for seed saving
-  **Cross-Pollination** - example
-  **Lesson Preparation: Seed Saving Instructions** - review and begin preparations at least 6 days before the class
- Prepared vegetable snack of the week – 1 for each student

- Water to drink during the Class Warm-up – water dispenser in the classroom and 1 cup or a water bottle for each student

Class Warm-up: Champion Cheer and Veggie Taste Test (5-10 minutes)

- Give each student a cup of water or ensure that they have a filled water bottle in front of them.
- Give each student the prepared veggie snack of the day.
- Lead the students in enthusiastically reciting the  **Champion Cheer**.
- At the end of the cheer, drink water and eat the veggie snack together.
- Have students complete their  **Taste Test Observations** about the vegetable snack of the week.

Review of Last Lesson (2-3 minutes)

- Review the evaluation questions from last week's lesson. Evaluation questions from all lessons are listed at the end of the workbook .

Class Discussion: Where Do Our Garden Seeds Come From? (5 minutes)

How did the seeds in our garden get there? Where did they come from and how did they make their way to our garden?

Raise your hand if you remember the different ways that seeds travel. What are some of those ways that seeds travel? (Answers: fly in the wind; float in water; animals or people transport them; animals eat them and then they are in their droppings; some plants explode and send seeds into the air; heavy seeds fall to the ground)

This is another way that seeds end up in our garden: seed saving. Humans have been saving seeds for hundreds of years. Seed saving gives us plants for next year and helps us keep our local plants growing.

There are 2 new words related to seed saving that we want to introduce before we get into our activity:

- *Self-pollinating*
- *Cross-pollinating*

Self-pollinating means that the plant from the seed we save will come out just like the mother plant.

Cross-pollinating means that the seed we save mixes with another kind of seed and the plant will be a mix of the two plants.

 **Cross-Pollination:** *Here is a picture of cross-pollinating. This is a mix of blue corn and yellow sweet corn. Raise your hand if you have seen corn like this.*

Activity (25 minutes)

- **Seed Saving (25 minutes)**

1. *Now we are going to learn how to save our own seeds. I'm also going to show you some seeds that I prepared a few days ago so you can see what will happen to your seeds a few days from now.*
2. Divide the class into groups of 2-3 students.
3. Review safety rules for using plastic knives during this activity.
4. Give each group a tomato, a plastic knife, a plastic spoon, a small plastic cup, plastic-wrap and paper towels.
5. *Cut the tomato in half across the middle. With a spoon, scoop the seeds from the tomato out of the flesh and put them into the cup. Add a little bit of water to the cup (about 4 spoonfuls).*
6. *Cover your cup with a piece of plastic-wrap. Poke the plastic-wrap with a knife to put a small hole in it. Now we will set all the cups aside in a warm location.*
7. *Now let's fast forward 2-3 days to see what your seeds will look like. These are seeds that I scooped out and set aside with water a couple of days ago.*
8. Give each group a cup of pre-molded tomato seeds (the seeds that were prepared 2-3 days before the lesson).
9. *Carefully remove the scummy surface from the seeds, using a spoon. Rinse the seeds with water many times, using a strainer or carefully doing this with your hands. After rinsing, remove as much water as possible so the seeds are dry. We need the seeds to be very dry when stored so they do not rot.*
10. Give each group a paper plate and some wax paper.
11. *Line the paper plate with the piece of wax paper. Place the seeds on the paper. Spread the seeds out so they are in a single layer. Now we will put all of the plates in a safe location where the seeds can dry for a few days.*
12. *Now let's fast forward another 2-3 days to see what your seeds will look like. In a few minutes I will give you another set of seeds that I scooped out 5-6 days ago, let them sit in water, and then rinsed them and let them dry on a plate for a couple of days.*
13. Give each student an envelope and crayons.
14. *This will be your seed packet. Take a few minutes to design your seed packet. Write your name and today's date on the packet. Also write 'tomato seeds' and draw picture or write other words on your packet.*
15. Give each student some of the seeds you prepared 5-6 days before the lesson.
16. *These are seeds for you to take home and save for next year. How do you think they should be stored? (Answer: somewhere cool and dry; this is the opposite of conditions for planting, which require water, light and heat)*

Class Discussion with an Elder Guest: Seed Saving (20 minutes)

Discuss the importance of seed saving. Introduce local practices for seed saving.

Evaluation Questions (5 minutes)

1. *Why do we save seeds?* (Answer: to plant next season and to keep our local plants growing each year)
2. *What is a self-pollinating plant?* (Answer: one that produces the same baby plant as the mother plant that the seed came from)
3. *What is a cross-pollinating plant?* (Answer: one that is a mix of seeds from two different plants, such as blue corn and yellow corn)
4. *Why do seeds need to be completely dry before you store them?* (Answer: so they don't rot while being stored)
5. *Where should seeds be stored?* (Answer: somewhere cool and dry)
6. *What are some things we do in our community to save seeds?*
7. *How much water should you drink every day?* (Answer: at least 6 cups of water a day)
8. *How many fruits and vegetables should you eat every day?* (Answer: at least 5 fruits and vegetables a day)
9. *Does gardening connect you to your culture and help you learn new words in your language?* (Answer: yes)

Preparation for Future Lessons – Reminder for the Instructor

- Review the materials and preparation needed for the next lesson.
- Remember that an Elder guest instructor is needed for these Fall lessons: Lesson 2 (The Plant Life Cycle), Lesson 4 (Seed Saving), Lesson 6 (Drying Foods the Traditional Way) and Lesson 10 (Companion Planting and Traditional Cooking).

Notes
