

First Peas to the Table

Volunteer Ag Literacy Project

Lesson plan for **Grades K-2nd**

Book

Maya loves contests, so she is excited when her teacher announces they will plant a school garden like Thomas Jefferson's garden at Monticello-and they'll have a "First Peas to the Table" contest, just like Jefferson and his neighbors had each spring. This is a great story that involves agriculture, science, history and friendship.

How the Project Works

Volunteers read to students in K-5 classrooms and completes a simple hands-on-activity with the students. Suggested time approximately 45 minutes to 1 hour.

Checklist

- ☐ Give teacher evaluation **BEFORE** you start presentation.
- ☐ Collect teacher evaluation *after* the presentation.
- ☐ Complete the attached feedback form once you have completed project.
- ☐ Send forms to agclass1@nmflb.org as soon as visit is complete.

Supplies Needed:

- ☐ 25 Food Service gloves or 1 per student
- ☐ 4 English pea seeds **per student** (one should be presoaked)
- ☐ 6 small paper/Styrofoam bowls filled with water
- ☐ 1 bag of cotton balls
- ☐ 6 permanent markers
- ☐ 6" string of yarn-25 or 1 per student

****Soak at least 30 of the seeds overnight, this is to test the "secret" from the story***

Part 1: What is Agriculture Anyway? (Time: 5 minutes)

Suggestion: Bring examples of everyday products that come from agriculture or show pictures on PowerPoint.

1. Ask students to raise their hand if they....
 - Beg your parents at the grocery store to get your favorite foods (like spinach, & broccoli)
 - Have ever bought flowers
 - If you have ever worn: Jeans, t-shirts, socks, underwear
 - Have ever taken medicine
 - If you know what the word agriculture means
2. Say, "Agriculture is SO important that we cannot live without it and has to do with the things we just mentioned and so much more!" Tell students the following:

Agriculture is very easy to remember because it mainly consists of two things:

 - Plants/crops: things we get from the soil AND
 - Animals/livestock: think animals you might see on a farm
3. Say, "Why are **animals/livestock** important?" (They provide us with food like milk, meat, eggs and clothing too!)
"Who raises these animals?" (Farmers and Ranchers)
4. Say, "Why are **plants/crops** important?" (Provide healthy food for us to eat, food for animals, give us clothes to wear like cotton, give us medicine, ex. Ginger root-great for upset stomach). "Who grows these plants?" (Farmers)
5. Tell students that today we are going to focus on the plant part of agriculture by reading a story about peas. Say, "How many of you like peas?"

Part 2: Introduction-Recruiting for the Future (Time: 5 minutes)

1. Briefly introduce yourself and discuss your connection to agriculture.
2. **Suggestion:** If you live on a farm or ranch, you may want to bring props, crop samples or photos of the farm/ranch, equipment or animals.

Common Core Standards - English

K.RI.1

2.RI.1

4.RI.1

1.RI.1

3.RI.1

5.RI.1

Part 3: Book Reading (Time: 10 minutes)

1. Introduce story. Ex. *"I am going to read a story about a girl and her classmates who are in a growing contest to see whose peas will be ready to eat first. As we read, use clues in the book to figure out who you think will win the contest in Mrs. Garcia's class and be sure and listen for important words such as: **agriculture, science, blossom, pod, soil, roots, fruits, leaves and water!**"*
2. Show off the great images in the book-especially the pea cycle drawing!
3. PRACTICE reading the book before your classroom visit, make it exciting and time yourself!

Part 4: Transition Activity-Life cycle of a Plant /Pea Blossom Dance (Time: 10 minutes)

1. Ask students to stand if they predicted the correct winner of the contest. Clap then have them sit down.
2. Tell them that we are now going to talk a little bit about the life cycle of peas from the story.
3. Ask them if they look the same now as they did when they were a baby. Tell them that similar to us, a seed changes too.
4. Then display life cycle of seed that is on the PowerPoint. Talk about the different stages that the peas from the book had to go through before they could have the pea harvest (SEED, SPROUT, SEEDLING, BLOSSOM, POD, PEA).
5. Go through the life cycle of a seed and say the following:
*"Seeds start to grow during a process called germination, which means it begins to sprout and develops a stem and roots. This occurs when the seed gets just the right amount FOUR things that we get naturally from our Earth: **WATER, AIR, SUN AND SOIL.**"*
Go through the following stages:
 - **SEED:** Has food for the baby plant. It's ready to start growing, it just needs the right amount of **water, air** and **warmth** (provided by the **sun**). The seed breaks open and starts to sprout.
 - **SPROUT:** Roots poke out of the bottom of the seed and leaves push their way out of the top.
 - **SEEDLING:** A tiny plant emerges out of the soil. The seedling now has longer roots and leaves. It will now need some nutrients to grow. Those nutrients can be found in the **soil**.
 - **PEA FLOWER/BLOSSOM:** This is the adult stage; it will now produce pods with peas (seeds) inside for us to eat!
 - **POD:** Has peas in side for us to eat, must cut open to see
 - **PEA:** The part we eat
6. Show video (on PowerPoint) of a seed germinating: <https://www.youtube.com/watch?v=d26AhcKeEbE>
7. Say, *"Let's do a Pea Blossom dance to show how this happens!"* Have everyone stand up and then say, *"I am going to show you the stages of the dance."* **Suggestion:** Start some music and ask one student to come and assist you. After you and the student demonstrate, have the class do it together.
 - **SEED:** Everyone needs to sit on the floor and curl up in a ball to become a tiny seed. Pretend to spray them with water.
 - **SPROUT:** Begin to sprout by slowly stretching out one leg and one arm (root and shoot).
 - **SEEDLING:** Slowly start to stand and reach for the SUN! Make your legs and feet firm to make strong roots!
 - **PEA BLOSSOM:** Stand tall and wave your hands.
 - **POD:** Bring your hands together and stand straight. Poke out your belly-there are peas inside!
 - **PEA:** Plop back down and curl up, you're ready to be eaten!

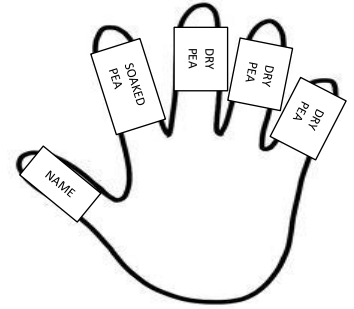
Part 5: Garden in a Glove: Let's be a Farmer AND a Scientist! (Time: 10 minutes)

1. Tell students that they are now going to become farmers and germinate (sprout) their own pea seeds by making a garden in a glove. Once their seeds become seedlings, they can transplant them into a container of soil and watch them complete their life cycle!
2. Tell students that they are *also* going to be a scientist by doing a science experiment. Ask, *"Who remembers Maya's secret?"* (soaking the seed makes it germinate faster). *"We will test to see if this is true by placing 1 presoaked seed and 3 dry seeds in our garden glove!"*
3. Ask again what a seed needs to germinate (sprout): **water, air, sun** for warmth (**soil** is needed when it becomes a seedling). Tell students that they are going to provide their seeds with these things to help them grow!
4. Tell students that when you are done demonstrating how to make a garden in a glove, they will get into groups of 4

students each. Each student in the group will get 1 glove, 4 peas seeds (one which has been presoaked), 4 cotton balls and 1 bowl of water.

5. Demonstrate the process of making a farm in a glove:

- Each student will use a permanent marker to write their name on thumb of the glove.
- Place a star on the pointer finger of the glove that has the soaked pea.
- Each person will dip their cotton ball into the **water** and then squeeze any excess water out so that the cotton balls are saturated but not dripping.
- On each cotton ball, place one seed, one of which has been presoaked.
- Place the presoaked “seeded” cotton ball into the pointer finger of the glove.
- Place the “seeded” cotton balls into the other 3 fingers of the glove (**not** the thumb).
- Blow some **air** into the glove and then twist opening and tie a piece of yarn around it to secure.
- Then groups will ask the teacher where to hang the glove (remember it needs warmth to germinate/sprout) and then hang them in the designated spot.



- Distribute the gloves permanent markers, cotton balls, water bowls, seeds and tape to each group. Assist students in creating their garden in a glove.
- Ask groups to make predictions as to how many days it will take the seeds to sprout. Encourage students to record daily observations of their germinating seeds. Show example of a journal (there is one in the book or use PowerPoint).
- Tell students that after the seeds germinate, they can plant them in a recycled container (don't forget to put holes on the bottom) with **soil**. Remind them that the seedling needs the nutrients in the soil to grow!
- Tell them they can have their own “First Pea’s to the Table” contest!

Part 6: Overview of First Peas to the Table Contest and Wrap Up (Time: 5 minutes)

- Tell them briefly about the contest.
 - Tell class that NMFLB is having a “First Peas to the Table” contest open to all classrooms in NM that have had hosted a presentation from FFA or NMAITC. (This lesson meets that requirement).
 - The contest will be held once in the fall and once in the spring and they can pick which time to enter! The classroom that harvests the most peas measured in cups is the winner!
 - What do you win?
 - A Pea-za party with your local FFA chapter (that’s us)
 - A \$100 gift card for classroom supplies
 - A visit from NM Ag “Royalty”, Miss Rodeo NM!
 - If you are interested, we will leave you with the contest information and entry form.
- Review what they learned by asking the following questions:
 - “What 4 Natural Resources do plants need to grow?” (WATER, AIR, SUN AND SOIL)
 - “What does a seed need to germinate/sprout?” (The right amount of water, air and warmth)
 - “Why does a plant need soil?” (It has nutrients in that helps the plant grow healthy).
- Ask if students have questions.
- Tell class that you will be leaving the “First Peas to the Table” book in their library for them to check out later. Leave contest information with teacher and collect teacher evaluation form.

**This lesson was adapted from National Ag In The Classroom lesson, “Farming in a Glove”:*

https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=66&search_term_lp=farming%20in%20a%20glove

Lesson Extensions:

1. **"First Peas to the Table" Classroom Contest:** for more information please see our website:
<https://newmexico.agclassroom.org/resources/literacy.cfm>
2. Click on the link below to see several lessons that go along with the "First Peas to the Table" book:
www.agintheclassroom.org/TeacherResources/.../Peas_Teacher_Guide.pdf
3. **Dig "Em Up:** Students will investigate the functions of roots, recognize the difference between a tap and fibrous root system, and identify the roots of some plants as edible.
https://newmexico.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=320&author_state=0&grade=0&search_term_lp=plants
4. **Eating Plants:** Students will identify the structure and function of six plant parts and classify fruits and vegetables according to which parts of the plants are edible.
https://newmexico.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=145&author_state=0&grade=0&search_term_lp=plants

Helpful Hints Before Your Classroom Visit

- Wear official dress. It looks sharp and promotes FFA.
- Practice! Prepare by reading book and practicing activity. You want to fit your presentation and activity within the time scheduled. Teachers have very busy schedules so please try to stick to your allotted time.
- Check in with the teacher. If possible, before your presentation, briefly visit with the teacher. Share a copy of the activity and ask if there are students that need special accommodations.
- Can everyone see and hear? Before you start reading, make sure all the students can see and hear the book so they will be good listeners.
- Move the book around as you read. Either while you are reading, or after reading each page, move the book so each student can see the great images. This is especially important with younger grades.
- Pay close attention to the students' mood. Move along fast enough to maintain student's interest, but slow enough for all students to thoroughly enjoy the story.
- Most importantly, have fun! Enjoy this wonderful experience of reading aloud and teaching children about the importance of agriculture.

QUESTIONS:

Contact New Mexico Ag In The Classroom with any questions you may have on the Ag Literacy Project, the "First Peas to the Table" contest or to request a training session.

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575-532-4714

Visit www.nmaitc.org for free lessons and resources

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