

2nd grade – Fall harvest 3 Sisters Garden

Title: 2nd Grade- Fall Harvest of Three Sisters Garden

Standards addressed: Life Science Standards EARL 4-LS1A Life Cycles (describe the lifecycle of a plant from seed to sprout, to adult, to fruits, flowers and seeds).

Unit connections: Science: Soils, Language Arts: From Seed to Plant (Non-Fiction), Watermelon Day (Fiction)

Description: Students will harvest and utilize the corn (or beans or squash) from the garden (that they planted in the 1st grade). Each small group of students will rotate through three stations: 1) garden harvest 2) corn milling 3) tortilla dough creation and pressing. Cooking is done by a volunteer parent. Eating quesadillas –(corn tortillas with cheese) is a whole group activity station.

Date: End of September or early October

Objective:

Objective: Harvest and utilize produce from the 3 sister's garden (planted in the first grade). Review the reasons for the 3 sister's garden and the life cycle of the plants they planted in the first grade—corn, beans, and squash. The plants help each other in the following ways. Corn provides a trellis for the beans to climb, beans provide nutrients for the soil by fixing nitrogen from the air into the soil, and squash leaves shade the ground to conserve water.

Time Required:

90 minutes= 15 minute introduction+3x20 minute rotations+15 minute wrap up/snack

Materials:

Supplies for Harvest: bags, bowls or baskets for the beans and/or corn

Supplies necessary for corn tortilla quesadillas: 2 electric griddles, corn mill, tortilla press, 2 bowls, spatulas, measuring cups, salt, 3 shallow baking pan to capture milled corn, masa flour, additional dried corn (whole dried corn off the cob can be purchased in bulk at Andy's Market, cheese, napkins, tortilla press and wax paper for the press.

At least 4-5 volunteers would be ideal

Preparation:

Establish these 4 stations: 1) garden harvest (in the garden with baskets or bowls for the beans and corn), history of corn/Three Sisters Garden 2) corn milling (corn mill) 3) tortilla dough creation and pressing into tortilla, 4) cooking (for parent volunteer only).

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To make tortillas correctly, we should be soaking the corn first in a solution of lye to release nutrients and make the dough more workable. Volunteers have had decent results by mixing our milled corn flour with store bought, lye treated masa flour.

Class Discussion: Brief lesson introduction (15 minutes): Gather class at the rug and ask students to share with an elbow partner (child sitting next to them) what they already think they know about corn and or the Three Sisters Garden and how seeds grow from seed to plant. Have a few students share what they know (could be written on a chart paper or on the dry erase board). Briefly explain the three stations students will participate in today. Students need to be divided into three groups (of 8-9). Explain that all the student groups will rotate through each of the 3 stations.

Action:

1. Have all students wash their hands
2. **Harvest Group (in garden) 20 minutes:** In the garden they will review the 3 sister's garden lessons including the history and nutrition of the produce (see attached information). The group will pick 2-3 ears of corn (as available), and tour the garden.
3. **Corn Milling Group (in common area) 20 minutes:** Students press kernels off the cob and then take turns milling corn to make corn flour (each student could get two turns with the mill).
4. **Masa/Tortilla Press Station (in classroom) 20 minutes:** At the pressing station, students help to mix masa dough, make small tortilla dough balls and press the dough to make a tortilla. Then parents cook the tortillas with cheese to make quesadillas.
5. **Wrap Up/Eating Quesadillas (in classroom) 15 minutes:** Gather all students at the rug again while the tortillas finish cooking and are served to tables/desks. Ask students to turn to an elbow partner and share 2 things they learned about the Three Sister's Garden or Corn today. Have a few students share their ideas with the class.

Vocabulary Words:

Harvest har.vest|'härvist| noun - the process or period of gathering in crops: *helping with the harvest.*
• the season's yield or crop: *a poor harvest.*

Nutrition nutrition |n(y)oo'triSHən| noun- the process of providing or obtaining the food necessary for health and growth: *a guide to good nutrition.*

Mill mill |mil| noun - machinery for grinding grain into flour. Verb - grind or crush

Additional Lessons/Resources and Extensions:

- History of corn/harvest: (visit www.nativetech.org/cornhusk/cornhusk.html)
- Review 3 sisters garden (visit [renee's garden.com/articles/three_sisters](http://renee's.garden.com/articles/three_sisters) for information)
- Making corn bread is another idea, which would not require pretreatment of corn with lye.
- To utilize dried beans, collect dry beans and cook as demonstration and make refried beans.
- To utilize squash plants, consider harvesting, cooking and using to make pumpkin muffins or pancakes or to roast the seeds.
- Use curriculum webpage pdf document "pumpkin life cycle vocabulary cards" or
- School garden projects lesson of life cycle of a plant.