The Three Sisters: Corn, Beans, and Squash-Revised Working Together to Build Relationships and Strengthen Family Values Designed by Julie Wonnacott for 5th Grade Students

My Contentions:

- Students will be able to share writing through various ways, such as partner, small group, and individual.
- Students will identify the characteristics of working together and how this alleviates the burden on one person.
- Students will be able to collaborate as they are learning and researching new material.
- Mentor texts will help support students' understanding of content and concepts in order to practice and produce original pieces of work.
- Questioning will allow students to continue to think critically about the topic as well as apply it to their own lives.
- Students will create their own displays collaboratively in order to produce an independent piece.
- Students will engage in a team working activity to demonstrate their own attributes of how they work as a team player.
- Students will compare and contrast text to create an example of how characters exhibit teamwork and build family relationships.
- Students will identify various literary examples, such as idiom, alliteration, dialogue, etc.

Essential Question: How can working together make a task easier and build relationships?

Lesson Development:

<u>Day 1-How do the Three Sisters work together?</u>

- 1. Quick Write-What does the quote "Many Hands Make Light Work" mean to you?
 - a. Make reference to this being an example of idiom/figurative language.
 - b. Have students reflect in a quick write on what this quote means to them.
 - c. Share with a partner, then share out to the class.
 - Write one word on a hand cut out and add it to our TEAMWORK board.
 - e. Leave up for reference of future lessons.
- Icebreaker on Teamwork: "Seeing Spots"

- a. Students will move around and get into groups without using voices (or 'lip talking').
- A color-coded sticker is placed on the foreheads of each student (yellow, green, or orange)
- Once in groups, preview YouTube Video: Three Sisters (Corn, Beans, Squash) https://youtu.be/FwaNH6khB0k
- 4. Read through four articles and gather additional information on the Three Sisters based on each group color.

https://www.oneidaindiannation.com/the-legend-of-the-three-sisters/https://www.oneidaindiannation.com/the-interworking-of-the-three-sisters/https://www.reneesgarden.com/blogs/gardening-resources/celebrate-the-three-sisters-corn-beans-and-squashhttps://seeds.ca/d/?t=bd6a996400003094

- a. Group colors are aligned with each sister; corn (yellow), beans (green), and squash (orange).
- b. Use highlighters to find and identify key details.
- c. Have each group design a poster on their 'sister.'
 - i. Prompting Questions: What is the role of your sister? How is your sister important to the other sisters? What limitations does your sister have? What is one fun fact about your sister?
 - ii. Offer designs of the Three Sisters if groups wish to add these to their posters.
 - iii. https://marlenamyl.es/wp-content/uploads/2020/07/3-sisters-sage-packet.pdf
 - iv. Use TEAMWORK hands for ideas.
- d. Use group jobs, including Materials Manager, Reporter, Data Collector, and Assistant (Cleaner will be added as needed).
- 5. Share out by group using the role of the group speaker.
 - a. Close with excerpt from *Braiding Sweetgrass* by Robin Wall Kimmerer.

Day 2-How can working together build relationships and family values?

- 1. Quick Write-Which sister has the most important role, or are they all equally important?
 - a. Have students reflect in a quick write on which sister is the most important.
 - b. Share with a partner, then share out to the class.
- 2. Continue with with YouTube Video; The Story of Three Sisters

https://youtu.be/I2EGyArwng8

- 3. Read Aloud: Three Sisters Garden by Sandy Baker
 - a. Before: Set the purpose for our read aloud by offering the following question
 - i. "How do the sisters exhibit teamwork qualities that help build their relationship as a family?"
 - b. During: Pause and reference...
 - i. Alliteration with the girls' names.
 - ii. Idiom example-Two peas in a pod
 - iii. Look for examples of how they are building family relationships.
 - iv. Stop and have students Pair-Share and explore what they notice.
 - c. After: Create a Family Heart Map on the Three Sisters.

My Heart Map.pdf

- i. Use research from yesterday's articles
- ii. Use ideas from the read aloud story
- iii. Use TEAMWORK hands for ideas.
- iv. Use group posters for ideas.
- 4. Whip Around Share
- 5. Close with excerpt from True History Indigenous America by Liam McDonald.

Day 3-What is the family relationship between the Three Sisters?

- 1. Open with song; Three Sisters: Corn, Beans, and Squash by Joanne Shenandoah https://open.spotify.com/track/2qnGPVYJ2FM1zs2fYkglfy?si=48aa3406d78f4a75
- Groups will partner read a variety of Pigeon Books by Mo Willems to introduce thought/speech bubbles. Identify how Elephant and Pigeon create a family type relationship and a teamwork atmosphere, no matter what challenges they are presented with.
- 3. Writing Task-Pick a Sister (Corn, Beans, Squash): Criteria provided for project.
 - a. Write from the perspective of one sister.
 - b. Use thought and speech bubbles to demonstrate ideas and dialogue.
 - c. Illustrate accordingly.
- 4. Gallery Walk-Students will explore the creations of classmates while comparing and contrasting their own project

- 5. Projects will be displayed around the classroom and/or school. Students will be provided the opportunity to invite grade levels in to share and browse their projects.
- 6. Close with an excerpt from *Braiding Sweetgrass for Young Adults* by Robin Wall Kimmerer

Invitations to Write:

Quick Write-What does the quote "Many Hands Make Light Work" mean to you? Quick Write-Which sister has the most important role, or are they all equally important? Family Heart Map-Display attributes of each sister.

Dialogue/Thought Bubble-Describe the relationship between the three sisters using dialogue.

Extensions:

Design your own Three Sisters garden and decide how you would arrange each sister.

Have our FoodCorp visit to share a Three Sisters meal of corn, beans, and squash, as well as explore our own individual recipes that incorporate corn, beans, and squash.

Explore our own lunch program to see if schools hit or miss the inclusion of the Three Sisters. Publish our Heart Maps as a class composite.

Continue research on the Three Sisters and compile an informative piece digitally.

Create a home project extending knowledge of the Three Sisters; corn, beans, and squash.

Explore additional cultural food traditions and discover findings of how each are individually important to said culture. Possibly have a 'food party' to capture and display findings.

Collaborate with the school's Garden Club to create a classroom/school garden.

Create a song and/or poem to convey the Three Sisters experience, including examples of alliterations.

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Appendix:

The Legend of the Three Sisters



The Legend of the Three Sisters

There are several legends surrounding the Three Sisters; indeed, almost every American Indian nation seems to have its own. The Cherokee legend involves three women who helped each other stay fed, hydrated and strong on the Trail of Tears, a lesson that the Cherokee used in planting their crops when they arrived in the Oklahoma Territory. Another legend describes three sisters who bickered constantly until their mother gave each of them an egg cooked in a different way and showed the sisters that, although the textures of the eggs were different, they were still eggs.

This is one version of the Haudenosaunee legend of the Three Sisters:

Very long ago, there were three sisters who lived in a field. The youngest was so small she could not yet walk; she crawled along the ground, dressed in green. The middle sister wore a bright yellow dress and darted back and forth across the field. The eldest sister stood tall and straight, and her body bent with the wind. She had long yellow hair and wore a green shawl. The three sisters loved one another very much and could not imagine living without the others.

One day a little Indian boy came to the field. He was very handsome and knew the ways of the land. He could talk with the birds and the animals and was straight and fearless. The three sisters were very interested in this boy as they watched him use his stone knife to carve a bowl or hunt with his bow and arrow.

Late in the summer of the boy's first visit to the field, the youngest of the three sisters disappeared. She was the one who could only creep along the ground; she could not even stand unless there was a stick she could cling to. But she was gone, and the other two sisters mourned her until the fall.

The Indian boy returned to the field to gather reeds that grew at the edge of a small stream. He used the reeds to make arrow shafts. The two remaining sisters again watched him, fascinated. That night, the second sister disappeared, the one who always wandered hither and yon. Now there was only one sister left, the tall and straight sister. She did not bow her head in sorrow, though she mourned deeply and thought she could not live in the field alone without her sisters. As the days grew shorter and colder, her green shawl began to lose its color and her yellow hair became dry and tangled. Night and day she sighed for her sisters, but her voice was low like the wind, and no one heard her.

One day in the harvest season, the little Indian boy heard the third sister crying, and he felt sorry for her. He took her in his arms and carried her to his home, and there a delightful surprise awaited her: Her sisters were there in the lodge, safe and very glad to be reunited. They explained that they had been curious about the little Indian boy and had followed him home, and they had decided to stay because winter was coming and his home was warm and comfortable.

The sisters also were making themselves useful to the boy and his family. The youngest, now all grown up, kept the dinner pot full, while the second sister, still in her yellow dress, dried herself on the shelf so she could fill the dinner pot later in the winter. The eldest sister was so pleased to be with her sisters again and so impressed with the help they gave the boy that she too began drying herself so the family would have meal to use as the winter went on.

And from that day to this, the three sisters were never separated again.

Source: "The Three Sisters – Exploring an Iroquois Garden," Cornell Cooperative Extension, 1997.

The Interworking of the Three Sisters



The Interworking of the Three Sisters

Corn, beans and squash are known as the Sustainers of Life because they comprised the foundation of the Oneida diet of old. Although occasionally augmented by the nuts and berries that grew wild and meat from deer and other game, the Three Sisters together provided nearly all the nutrients the Oneida people needed to remain healthy and active.

In fact, modern nutritional science has shown that even the methods of preparing the Three Sisters, especially corn, increased their nutritional value. White corn has thick hulls that are difficult to grind and hard to eat, so they have to be removed before the corn can be used. Hulling by hand is time-and labor-intensive, but ancient Oneidas discovered that soaking the corn in a mixture of water and wood ashes would dissolve the hull without damaging the edible part of the corn. This became known as "hominy," which could be eaten as it was or dried and ground to make hominy grist – known today as the very popular Southern dish of grits.

Preparing the corn in this way alters the nutrients so that the human body can absorb the highest amount of niacin. The process also increases the amount of calcium in the corn and turns the protein into a form that is more readily usable by the body.

Eating corn, beans and squash together – as the ancient Indians did in a dish that has come to be known as succotash – also enhances the nutritional benefits of each. Together, the complementary amino acids of the Three Sisters form complete proteins, virtually eliminating the need for meat in the diet. Traditional white corn also contains a slow-release carbohydrate that is now known to help prevent and regulate diabetes – a quality today's more popular yellow corn lacks.

When grown together, the Three Sisters also fare better and are better for the environment. The corn stalk acts as a trellis for the beans. Bacteria that grow on the bean plants feed on sugar from

the corn's roots and convert nitrogen in the air into a form the plants can use, releasing nitrogen into the soil and providing fertilizer for the corn and squash. The squash vine's wide leaves shade the soil, preventing erosion and weed growth and retaining moisture. Together, the Three Sisters yield up to 20 percent more produce while using a smaller plot of land that requires less water and less fertilizer.

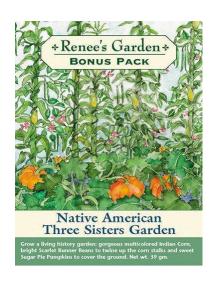
Three Sisters in a Basket

If you don't have room to plant a traditional Three Sisters garden, you can use a bushel basket or similar large container. In a lightweight soil mix, plant two or three corn seeds in the center of the container, leaving six inches between them. When the corn plants are six inches high, plant three or four bean seeds and two pumpkin seeds between the corn plants and the edge of the container; leave about two inches between the seeds and the edge. Water at least once a week, and treat with fertilizer or compost to provide adequate nitrogen (beans don't provide enough nitrogen until after the first year, when their roots break down in the soil). To pollinate the corn, remove the tassel at the top of the corn plant and shake it vigorously over the silks of the ears. Do this as soon as the tassel emerges; otherwise, the pollen may be blown away in the wind.

Source: "The Three Sisters – Exploring an Iroquois Garden," Cornell Cooperative Extension, 1997.



The Garden to Table Seed Company



Celebrate the Three Sisters: Corn, Beans and Squash

By Guest Author Alice Formiga

According to Iroquois legend, corn, beans, and squash are three inseparable sisters who only grow and thrive together. This tradition of interplanting corn, beans and squash in the same mounds, widespread among Native American farming societies, is a sophisticated, sustainable system that provided long-term soil fertility and a healthy diet to generations. Growing a Three Sisters garden is a wonderful way to feel more connected to the history of this land, regardless of our ancestry.

Corn, beans and squash were among the first important crops domesticated by ancient Mesoamerican societies. Corn was the primary crop, providing more calories or energy per acre than any other. According to Three Sisters legends corn must grow in community with other crops rather than on its own – it needs the beneficial company and aide of its companions.

The Iroquois believe corn, beans and squash are precious gifts from the Great Spirit, each watched over by one of three sisters spirits, called the De-o-ha-ko, or Our Sustainers. The planting season is marked by ceremonies to honor them, and a festival commemorates the first harvest of green corn on the cob. By retelling the stories and performing annual rituals, Native Americans passed down the knowledge of growing, using and preserving the Three Sisters through generations.

Corn provides a natural pole for bean vines to climb. Beans fix nitrogen on their roots, improving the overall fertility of the plot by providing nitrogen to the following years corn. Bean vines also help stabilize the corn plants, making them less vulnerable to blowing over in the wind. Shallow-rooted squash vines become a living mulch, shading emerging weeds and preventing soil moisture from evaporating, thereby improving the overall crops chances of survival in dry years. Spiny squash plants also help discourage predators from approaching the corn and beans. The large amount of crop residue from this planting



combination can be incorporated back into the soil at the end of the season, to build up the organic matter and improve its structure.

Corn, beans and squash also complement each other nutritionally. Corn provides carbohydrates, the dried beans are rich in protein, balancing the lack of necessary amino acids found in corn. Finally, squash yields both vitamins from the fruit and healthful, delicious oil from the seeds.



First Nations Farmers and Seeds



Alexandra Post

Heritage vegetables incorporate just what you might think they would – a rich history and culture in the form of food, stories and growing practices. Many are unique varieties that have stood the test of time, often because of their impeccable storage, hardiness, adaptability and taste.

Saving open pollinated seeds means that you can select the traits that are most desirable, tailoring a variety to the preference of those who eat it and the regions in which it is grown, and passing down those traits from one generation to another. This exact practice has been done by seed savers around the world for hundreds of years, and is the reason we can enjoy some of the foods our great-grandparents did.

Several of our oldest varieties in North America can be credited to indigenous groups, who grew and selected varieties not only for their taste, but also for their cultural and historical significance. While many indigenous communities used to be nomadic, many would plant short-season crops with seeds saved from previous years. The northern Anishinaabe people, for instance, relied primarily on hunting and gathering, but communities who lived a bit further south also practiced subsistence farming.

The Anishinaabe often planted corn and beans together. One of the stories of this companion planting practice goes like this: Corn was a good-looking but lonely plant. Squash offered to be his companion, but corn refused, saying that they couldn't grow together because while she spread on the ground, he grew straight and tall. Bean, however, heard this conversation and decided to grow up tall alongside corn. They developed a close bond, which still lasts today.

The relationship between beans and corn goes beyond this legendary romance. The inseparable duo also aid each other's growth, as corn acts as a pole or trellis for the beans to grow on, and beans fix nitrogen and increase the fertility of the soil.

The Ashininaabe weren't the only ones to recognize the advantages of companion planting. Iroquois, famous for their advanced farming techniques, including crop rotation and irrigation, also planted the "three sisters" – corn, beans and squash – together. Squash plants act as mulch, reducing moisture loss and restricting weeds.

Working with members who have ties to indigenous communities, Seeds of Diversity is helping to preserve some of the seeds that originated with the first farmers. For example, seed savers in northern Ontario are growing Odawa beans, Algonquin pumpkins, and Gaspé flint corn, among other ancient varieties.

The Odawa bean is named after the community of the same name, who traded with many tribes. Odawa means "traders", and it is known that the same beans were grown by neighbouring tribes too, such as the Ojibwe and Hidatsa. They are a semi-climbing variety with large pods that are excellent in soups and were likely mixed with corn and meat to provide nutritious meals. Gaspé corn originated from Micmac tribes along the northeastern region of Canada. Its short growing season makes it ideal for northern climates. The Algonquin pumpkin is renowned for its sweet taste and how well its seeds survive storage.

Our Seed Library is a useful tool for conservation of seeds like these, but it is no substitute for the active preservation that is possible by seed saving communities. We are honoured to be caretakers of rare seeds when they are given to us to preserve, but these varieties belong in the hands of First Nations farmers, and we are incredibly fortunate that they saved them in the first place so all people can enjoy them today.

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Alexandra Post is a student working at Seeds of Diversity for the summer.

Photo: Odawa beans

