

Kanenon:we - Original Seeds Lesson

Kindergarten - Second Grade

"The seeds do better when they grow on the land they are familiar with the most and surrounded by their own songs and their own language."

— Angela Ferguson, *Kanenon:we - Original Seeds*



Lesson Overview

In this lesson kindergarten, first, and second-year students will have the opportunity to play with, observe, grow, and be creative with seeds. For young students, this may involve smelling, touching, and eventually tasting something grown from a seed. Students can sort seeds by size, or compare the colors of the seeds all to excite and invite a curiosity about seeds and instill a wonder and appreciation of the preciousness of seeds.

This lesson was developed as an introductory activity to support **Kanenon:we - Original Seeds** (pronounced Ga nah-seed, ooh we-original), a documentary short that tells the stories of three Indigenous women from different Native Communities who are reversing this attempt of erasure. They are reclaiming their ancient role as seed keepers, regenerating, protecting, and rematriating sacred and endangered heirloom seeds for future generations. The film offers an opportunity to listen and learn from Indigenous women sharing their practices of seed stewardship and their work to rebuild and strengthen Indigenous food sovereignty by sharing knowledge and restoring their ancestral ecosystems.

Bringing this documentary into the classroom invites all students to understand, appreciate, and honor the importance of heirloom seeds and apply this new knowledge and practices to sustain and celebrate Indigenous ways of life. In doing so, we move one step towards returning ancient wisdom and agricultural practices to our planet. As Angela Ferguson shares in the film, "I think part of our healing is through the foods, sharing the seeds, sharing the knowledge. We want to help bring it back to the forefront or else we won't survive."

We want students to first fall in love with the wonder of seeds and showing a film may not be the most effective resource to engage or excite this age. However, we encourage all educators to watch **Kanenon:we - Original Seeds** before the lesson for background and personal enrichment.

Essential Questions

- What is a seed?
- Have you ever planted a garden?
- Have you ever grown something you have eaten?
- What does a seed need to grow?
- How are our bodies similar to seeds?



Activity

Day One

Length

Two-day lesson (50-min periods)
+ monitoring and drawing of seed
growing over two weeks

Standards

Refer to the Educator Handbook
for a complete listing of Next
Gen Science and Common Core
Standards for ELA/Social Studies.

Materials

- Zip-lock sandwich bags
- Paper towels
- Seeds (some suggested variations)
- Choose different large seeds such as beans and have students compare germination rates based on the size of the seed, light conditions, moisture, etc.
- Choose one heirloom and one non-heirloom bean seed and have students compare sprouting rates based on the size of the seed, light conditions, moisture, and heirloom or non-heirloom
- Tape and water
- Art supplies (paper, watercolors, crayons, pastels, etc.)
- Sprouts for students to taste

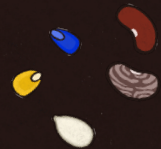


For Extended Learning

Access to the documentary *Kanenon: we - Original Seeds* or a children's book about seeds.

Have students assemble in a circle and ask them the essential questions of the lesson:

- What is a seed?
- Have you ever planted or visited a garden?
- Do you have a family garden or visited a community garden?
- Have you ever grown something you have eaten?
- What does a seed need to grow?
- What do the roots of the plant do?
- How are our bodies similar to seeds?



Extended Learning:

1) Show the first few minutes of the documentary *Kanenon:we - Original Seeds* or read a story to students from the suggested children's books noted in Resources at the end of the lesson.

2) After discussing the questions, pass around a collection of different seeds for students to touch and share observations. Have students play with the seeds, smelling them, feeling the differences between the different seeds, describing their size and colors, and trying to guess what food may grow from each seed.

3) Explain to students that over the next two weeks, they will be experimenting with different kinds of seeds and germination, documenting the growth of a seed, and observing how a seed becomes food.

4) Have students pick two different seeds from the seeds you provide, a piece of paper, and some art supplies. Have students spend a few minutes looking closely at their seeds then transition them to drawing their "Seed Portrait" however they want to represent them - large/small, different colors, etc. Explain to students that they will be returning to their seed over the next two weeks and adding to this artwork as their seeds change.

5) Transition students from drawing their seed to then collecting supplies assembled on another table (zip-lock bags, paper towel) and walk them through the following steps:

- Wet a paper towel and fold it to fit inside the bag
- Place a few seeds on the paper towel, ensuring they are visible through the bag. Insert five staples about halfway up the bag. This will keep the beans in the right place so that there's room to watch the roots grow
- Seal the bag partially, leaving some air space
- Place a piece of tape at the bottom of the bag with student's name
- Tape the bag to a window with the seeds facing inwards
- Observe the seeds daily
 - Add water as needed to keep the paper towel moist. If comparing moisture rates instruct students to add different amounts of water
 - If comparing light conditions, have students document their seeds taped in the window versus seeds taped to the wall.

Educator Notes

- About three days after planting the first roots appear
- A few days later, the stems start to push upward
- After ten days, the leaves will peek out of the seed coat
- By two weeks, the first true leaf will appear while the stem will continue to grow

Supplies

- One zip-lock sandwich bag per student
- Paper towels
- 2 seeds per student
- Tape and Water
- Art supplies

Day Two - Day Fourteen

After Day One, have students spend at least 10 minutes daily returning to their seeds, adding moisture if needed, and closely observing and adding new details and observations to their seed portrait.

Day Fourteen

1) At the end of two weeks, have students once again assemble in a circle. By this time, the seeds in the bags will have sprouted. If some seeds never germinated, discuss the different factors that may have contributed such as the age of the seed, light, moisture, etc.

2) Invite students to then take their sprouts down from the windows or walls and return to the circle. Have students take their sprouts out and invite them to taste what they have grown. If they are reluctant, you may want to have on hand some sprouts (or beans) from the grocery store that you can pass around for students to taste.

- What do their sprouts taste like?
- Discuss if you were to plant the sprout, what would grow?

Extended Learning:

If available, spend a class period cooking with ingredients similar to what the students grew. Here are some recipes and practices to explore:

- [Mohawk Chef I Making Haudenosaunee Corn Bread at Mohawk Seedkeepers Gardens](#)
- [Haudenosaunee Cooking: Decolonizing our Food Part 2 Protecting our Food Relatives](#)
- [Ukwakhwa - YouTube](#)
- [Indigenous Seed Exchange Etiquette](#)

Alternatively, have students create an original story titled "My Seed Back" drawing what they observed, felt, or now believe about their seeds. If they are just learning to write, have students practice writing simple captions for their illustrations. After completing and illustrating their books have students

- tell their stories to one another in small groups or during a school assembly or event such as a back-to-school night.
- share their stories during a community-organized school gathering celebrating students learning.
- display their books at the local library, botanical garden, or community garden.

Next, transition students and organize their Seed Portraits around the room for a gallery walk. Invite parents and other classes in the school to come and celebrate the seeds.

Recommended Children's Books

- *Birdsong*, Julie Flett
- *Keepunumuk: Weeâchumun's Thanksgiving Story*, Danielle Greendeer
- *Mii maanda ezhi-gkendmaanh / This Is How I Know*, Brittan Luby
- *Mnoomin maan'gowing / The Gift of Mnoomin*, Brittan Luby
- *Shanyaak'utlaax: Salmon Boy*, edited by Johnny Marks, Hans Chester, David Katzeek, and Nora and Richard Dauenhauer
- *Remember*, Joy Harjo



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