



Connecting Math to Our Lives and Communities

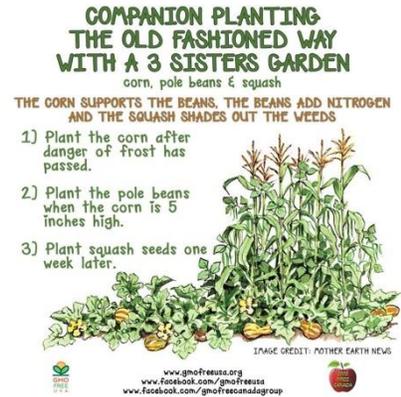
Let's Grow a Garden!

Introduction:

Since Covid-19, many people are experiencing an erratic food supply for the first time and much more time on their hands. To compensate for this, people have picked up gardening for reassurance as well as for a hobby. Gardening develops your relationship with the land, since the land is such an important piece to us, we must respect it. Some tips from Mi'kmaq food growers include:

1. Plot Your Success: If you are just starting out, start small and work your way up. Try starting with easy to grow plants.
2. Cultivate Plant Friendships (*Three Sisters): We want companion plants next to each other. This means the plants will work together for optimal growth. There are many plants who like to be together. Do some research and test out plants for yourself to observe and then determine the best combinations.
3. Make Room For Hardworking Beauties: Flowers attract bees, hummingbirds and butterflies which brings in pollination, which is an essential part in a plants life cycle. Be sure to plot flowers in your garden as well, not just vegetables.
4. Keep Crops Cozy: Rocks are set next to plants or seedlings that are struggling. The rocks will act like a heat sink; they will absorb the heat when the temperatures are high and release heat when the temperatures are colder. This will help protect your plants from potential harsh weather.
5. Source Materials Locally And For Free: To conserve soil moisture and keep the weeds down, you can surround your plants with mulching material which would be otherwise discarded. This could include leaves, grass clippings or shredded paper.
6. Embrace Dandelions: They may seem like weeds, however, their roots break up hardened soil and this will bring in earthworms. All of this will create a plant friendly soil.
7. Include Healing Herbs: This connects to the Medicine Wheel, and the importance of natural healing. You can plot many medicines such as echinacea, chamomile and comfrey.
8. Save Your Seeds: Seeds will always be there to provide food and a spiritual connection to the Earth. Keep the seeds, especially of the plants that thrived to help ensure food supply in the future.

*A Three Sisters Garden is a method of gardening called companion planting. This is when three plants grow together to prevent weeds and pests, enrich the soil and support one another for optimal growth. The specific plants are flint corn, beans and squash.



Math Connections:

- Measurements
- Recording
- Graphs
- Conversions

Materials:

- Plastic pot
- Paint
- Paint brushes
- Markers
- Plotting soil
- Seeds (lettuce, sugar peas)
- Homemade watering can
- Binder
- Garden journal
- Thermometer
- Graph paper



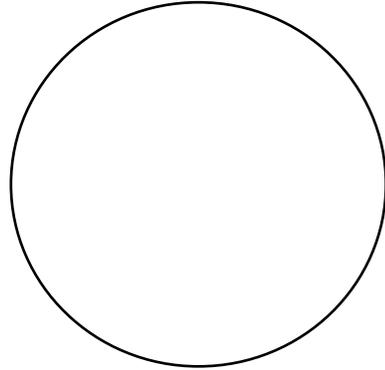
Activity:

For this activity, you will be setting up and taking care of your own garden. Growing a garden takes time, so this is a project that you will be taking care of for the length of the camp. It will require daily check ins.

- 1) Using the paint and markers, decorate and customize your plastic pot and your homemade watering can. Make this unique to you and be sure to label the pot with whatever seed you decided to plant. This way you know what is growing.
- 2) Next up, we will begin to plant the seeds. To start, we need to put the plotting soil in the pot, and then follow the directions of each seed on how to plant it properly. It is important to note that we need to plant multiple seeds to increase the chances of germination occurring.
 - a. If you are planting cold weather vegetables (like lettuce, spinach, and peas) it is important to keep them in a shaded area.
 - b. You will be giving multiple packages of seeds, it is up to you to choose which type of seeds you would like to plot for the camp.
- 3) As your garden grows, it is important to log your observations and other key information in a garden journal.
 - a. You will be recording height of the plant (in centimeters), daily weather and temperature (in Celsius), if you watered your plant, leaf pattern and any other observations.
 - b. You can colour in the thermometer to have a visual on the average temperature changes.
 - c. At the end of every week, draw a photo of what your plant looks like so we can compare the changes over time. **OPTIONAL:** draw a scale bar to demonstrate the height of your plant in your drawing.

Questions:

How many seeds did you plant? How far apart did you place them? Draw it out!

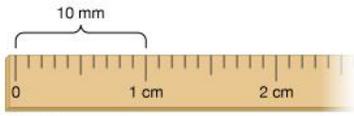


Can you put too many seeds? Why or why not?

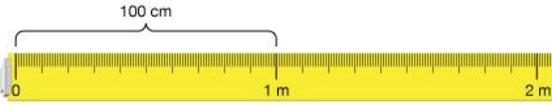
Are there certain plants or vegetables that cannot grow near one another? Why?



Metric system: multiples of 10



10 millimeters = 1 centimeter



100 centimeters = 1 meter



1000 meters = 1 kilometer

In You measured the height of your plant in centimeters.

How many centimeters are in a meter? _____

How many millimeters are in a centimeter? _____

How many millimeters are in a meter? _____

Can you determine the height of your plant at the end of the camp in millimeters and meters?

OPTIONAL:

Using the graph paper from your kit, set up a height vs time graph for your plant. Hypothesize what the graph will look like. Were you correct? What does the graph look like?

Send us a photo of your garden at Connecting Math to Our Lives and Communities email (cmtolcstfx@gmail.com)! ☺

Seed Planting Instructions

