A BEGINNER'S GUIDE TO

Gardening in Ontario

VEGETABLE EDITION

Reconnect Brampton

Welcome to **Reconnect Brampton**

Welcome to our growing Reconnect community, where dynamic connections and experiences await. To express our gratitude, we've designed this exclusive gardening guide just for you! Thanks to our partners at **Homestead T.O**, you will have everything you need to know about starting your gardening journey this Spring.

From the first tender seedlings to the abundant harvest, experience the joy of cultivating your own green oasis. Uncover the secrets of the soil, rhythms of nature and the beauty in each bloom. Whether you're a green thumb or novice, let this guide be your resource to connect with the fascinating environment around us. We have also included a few facts about the impacts of different weather patterns on farming and gardening.

Visit **ReconnectBrampton.ca** to learn about the many other ways you can get involved with nature and your community.

Sincerely,

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The growing season is here and we are excited to experience the wonders of nature right outside our windows. Let's get started with the garden planning process! There are four main steps to consider when planning your garden:

STEP ONE: UNDERSTANDING YOUR PLANTS NEEDS

Before deciding where to place each plant, it's crucial to understand what they need to thrive. By understanding your plants' requirements, you can strategically position them in your garden to generate a bountiful harvest.

Important plant needs to consider include:

- Sunlight
- Soil fertility
- Water needs – regular watering, drought-tolerant
- Protection – from morning dew, from wind, from pests
- Soil drainage
- pH – high, neutral or low acidity level
- Trellising – supporting plants to stand vertically on their own
- Pollination – insects, wind

A list of the needs for each plant can be found on the seed packet you purchase or in seed catalogues online.

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To determine where your vegetables should be placed in your garden, you need to determine what sun exposure they prefer and their nutrient needs.

Nutrient Needs

Did you know that vegetables are classified into three categories based on their nutrient needs?

1. Heavy feeders (ex. tomatoes, potatoes, and squash)
    a. Approximately 3 inches of compost needed annually
2. Medium feeders (ex. onions, carrots, and chard)
    a. Approximately 2 inches of compost needed annually
3. Light feeders (ex. peas, beans, and lettuce)
    a. Less than 1 inch of compost is needed annually

Sun Exposure

You can find how much sun your veggie prefers from a quick online search, but a general rule of thumb is:

1. Full sun - for vegetables that produce fruit (eggplant, peppers etc.)
2. Partial sun - for root or stem vegetables (carrots, celery, beets etc.)
3. Partial shade - for vegetables where we eat the leaves (lettuce, kale, spinach etc.)

! Most of the land in our cities is privately owned, and the green infrastructure each of us creates on our property will link with other gardens to create corridors across our communities."

~Greenbelt Foundation

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Plan your vegetable garden

Use the chart below to categorize your plants based on their needs. This will allow you to see what clusters may be planted in similar areas of your garden.

	Full shade	Partial shade	Full sun
Light feeder			
Medium feeder			
Heavy Feeder			

? **DID YOU KNOW** that climate change is impacting the maple syrup industry? Like the plants in your garden, maple trees rely on a predictable climate. With warmer winters, and faster spring-thaw periods, syrup production has now become more challenging**.** ~CBC Radio

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STEP TWO: MAPPING YOUR GARDEN

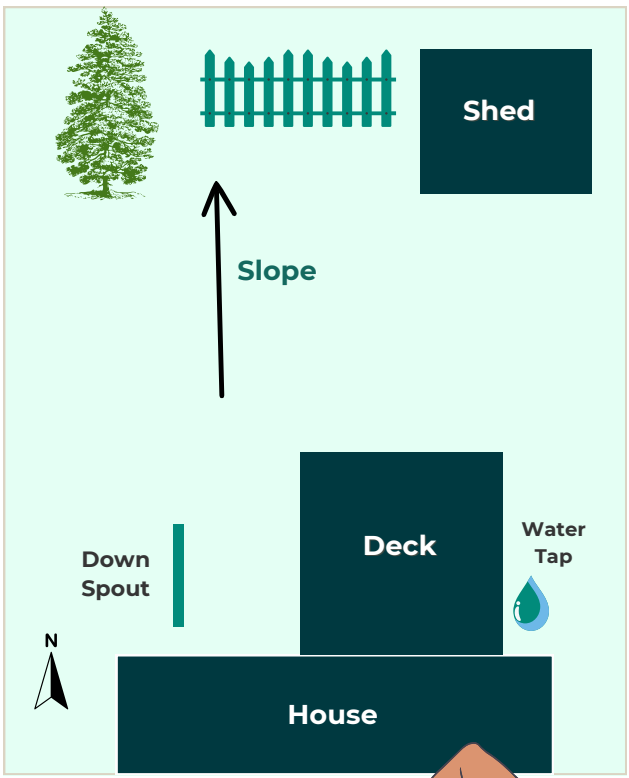
On a sheet of paper, sketch the layout of your garden like the example below. Key elements to include in your map are:

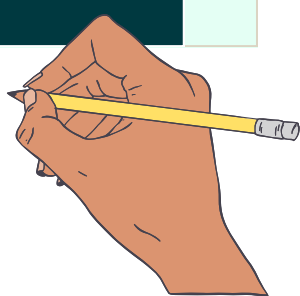
- Where North is located (to determine sunrise and sunset)
- Buildings, fences or railings that may offer shade
- Slopes (to determine how water may flow or collect)
- Downspouts, water taps, or rain barrels
- Existing trees/shrubs and flower patches
- Garden paths

TIPS FOR YOUR SKETCH

- You can estimate sunlight by simply observing how much sun hits the different areas of your garden on a sunny day. Keep in mind that the sun will gradually rise higher in the sky as we approach late June.

- You can estimate soil fertility by considering a number of things. For example, if you've added fertilizer in recent months, that will increase soil fertility. Similarly, soil fertility tends to be higher if your garden is at the base of a slope or if you notice lots of worms or insects in the dirt. On the other hand, large plants near your garden can suck up all the nutrients and decrease soil fertility.





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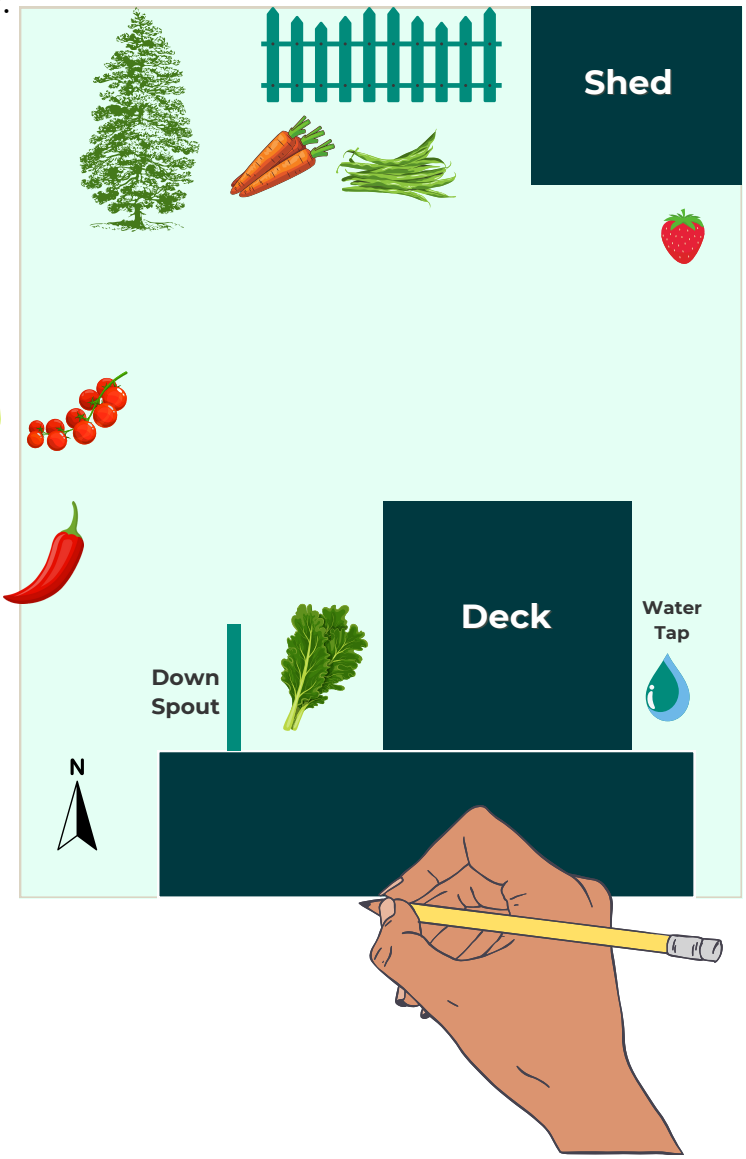
STEP THREE: MATCHMAKING

Now that we know what your plant requires, it is time to find them a new home in your garden. Transfer the plants from your chart into the sketch of your garden. Place them in areas that are best suited to help them flourish like in the example below.



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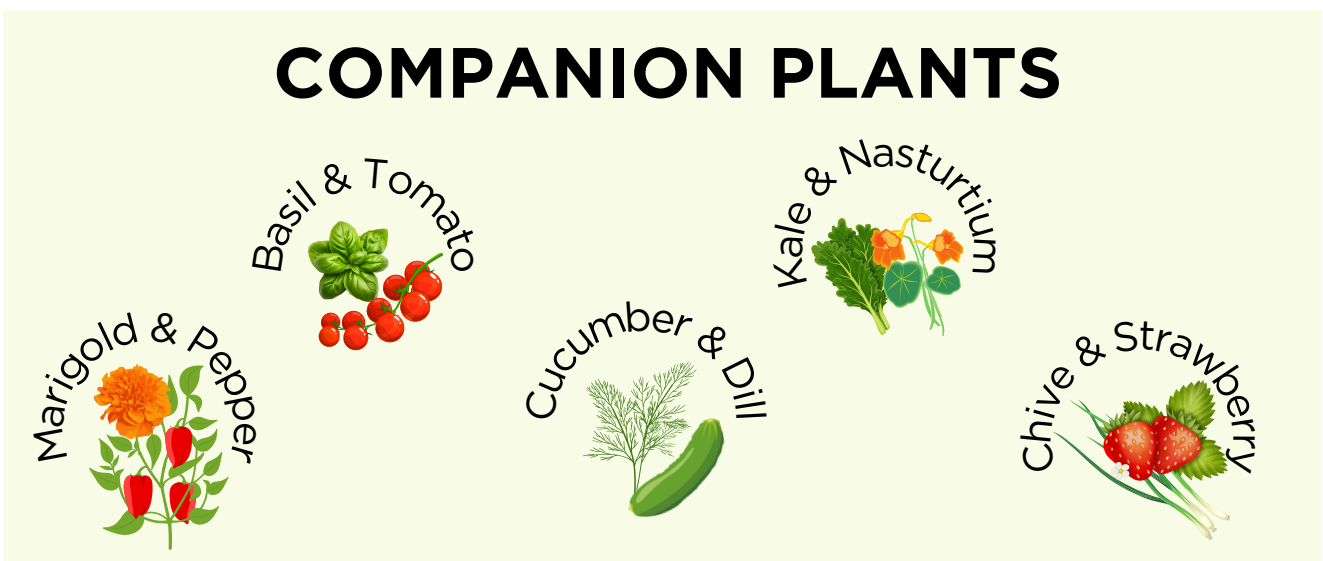
STEP FOUR: COMPANION PLANTING

After creating a draft garden plan, the final aspect of early garden planning is companion planting. Similar to people, plants have friends and foes! The characteristics that determine friendliness between plants include:

- **Above-ground growth form –** Plants thrive when they don't overcrowd each other.
- **Below-ground growth form –** Shallow-fibrous-root plants (e.g. lettuce and spinach), deep-fibrous-rooted plants (e.g. corn and tomatoes), and tap-root plants (e.g. carrots and beets) should all be intermingling!
- **Nutrient requirements –** Heavy-feeders perform better when planted beside light-feeders, and vice versa.
- **Insect attractors/repellers –** Native flowers (such as yarrow and Queen Anne's lace) attract beneficial insects, while aromatic plants (like basil, dill, and peppermint) repel many pests.



7 Benefits to **Companion Planting**

Companion planting involves pairing plants next to each other to provide mutual benefits. These benefits can manifest in various ways, such as:

- **Pest prevention –** When certain aromatic plants (e.g. herbs) and spiny plants (like squash or cucumbers) are planted alongside your crops they can deter pests from the main crops, while also providing an additional item to harvest.

- **Weed suppression –** Putting spreading but non-invasive and low-feeder plants such as oregano or lettuce beside your desired plant will suppress the germination of new weeds.

- **Fertilization –** Nitrogen is the element that makes plants grow lush, green and healthy. Certain plant species are known as nitrogen-fixing plants. These plants make it easier for plants to access and absorb nitrogen. If you place nitrogen fixing plants (such as beans) in your garden all your plants will benefit from this special ability!

- **Flavor –** Sowing certain plants beside others can enhance their flavor profiles – for example, planting bee-balm or basil beside tomatoes

- **Changing soil type –** Certain plants make a great team when it comes to soil! For example, carrots tend to break up the soil making them a perfect match with plants that prefer loose, well-drained soil like tomatoes.

- **Providing shade and/or windbreaks –** Planting partial-shade plants on the north side of tall, sun-loving plants will assist each of them

- **Trellising –** Plants such as sunflowers and corn make great trellises for climbing plants such as pole beans and pickling cucumbers

Companion plants are usually planted amongst your “primary” vegetable plants in order to provide all of these benefits. You can squeeze in companion plants wherever you have bare soil.

Prepare
Your Soil

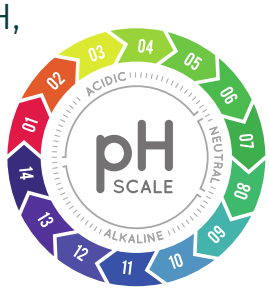
Benefits of Testing Your Soil

Soil is a crucial component of gardening. It's where plants absorb water, oxygen, and essential nutrients! Taking the time to evaluate the soil conditions before planting your vegetables lays a strong foundation for gardening success. Different plants deplete soil nutrients at different rates, requiring specific nutrient replenishment to maintain soil fertility.

Nutrients can also be washed away in the rain making ongoing fertilization even more important. If you take the time to prepare your soil so that it can better hold on to its water, oxygen and nutrients your plants will be able to thrive!

Types of Soil Tests

You can evaluate soil quality and nutrient levels using tests available at garden centers, which will tell you what your soil's pH, nitrogen, phosphorus, and potassium levels are. Begin with a pH test to determine how acidic your soil is. Ideally, you want a pH between 6.0 and 6.8 (depending on the plants you're growing). For more soil testing options and information, consult your local garden center or visit the Homestead TO website. They offer valuable resources to guide you through the process.



? **DID YOU KNOW** that Ontario grapevines need to be gradually introduced to colder temperatures in order to survive the winter? This is called acclimatisation. However, sudden drops in temperature prevent the acclimatization process from taking place. In 2021, extreme weather fluctuations led to crop losses of up to 75% in some wineries! ~CTV News

Prepare
Your Soil

So how can we optimize our soil?

The first step of soil optimization is to enhance its texture. An ideal soil texture has a good mix of particle sizes and shapes. When soil particles are all large, water and nutrients quickly drain away, depriving plants of essential resources. On the other hand, if all the particles are small the soil gets too compact which doesn't allow for air and water movement.

You'll also want your soil to be a balanced mix of minerals such as sand, silt, and clay, along with organic matter such as compost (organic matter is anything that was originally found in living organisms—think kitchen scraps!).

To Till or Not to Till?

Tilling involves turning the soil to prepare it for planting and to incorporate compost or fertilizer. While tilling offers the immediate benefit of loose, easily crumbled soil, it can significantly disturb the habitats of the tiny organisms that live in the soil which are crucial for plant health.

Whether or not to till depends on soil quality: If your soil feels loose, then tilling is likely unnecessary. If you dig a test hole and see plenty of insects and earthworms indicating a healthy soil, and tilling would likely cause more harm than good.

Select
Your Seeds and Fertilizers

When ordering seeds, you'll need to decide between open-pollinated or hybrid seeds, which we'll explain more about below. You might also take into consideration organic vs. non-organic options.

Open-Pollinated Seeds

Open-pollinated seeds are naturally pollinated through mechanisms such as gravity (self-pollination), insects, or wind. The primary advantage of these seeds is that they will produce a plant of the exact same variety.

Hybrid Seeds

Hybrid seeds are the result of cross-pollination between plants of different varieties. The primary advantage of hybrid seeds is that they can combine the optimal characteristics of each parent into one vegetable.

Fertilizers

As your garden begins to flourish, ensuring continued growth, health, and flavor becomes essential. Fertilizer plays a crucial role in this process. Although plants generate 90-95% of their food from sunlight, water and carbon dioxide, they rely on nutrients in the soil for the remaining 5-10%.

To begin, opt for a balanced fertilizer with slow-release properties, such as compost or worm castings. These options provide a solid foundation for vegetable plant growth. As your plants develop, you can further enhance their growth by adjusting your fertilizer application accordingly. The Homestead TO website is a great resource for additional information on fertilizers and their application.

ONTARIO'S ULTIMATE
Vegetable Planting Calendar

"An underappreciated element of gardening is the timing of planting into the soil." -Derek Barber, Homestead T.O.

Use the chart below to determine when to plant your vegetables so they can best thrive and yield a bountiful harvest.

Legend | **Start indoors** | **Direct sow** | **Transplant** | **Cover**

Vegetables	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Broccoli												
Carrots												
Corn												
Cucumbers												
Kale												
Lettuce												
Peppers												
Beans												
Strawberries												
Tomatoes												

Adapted from West Coast Seeds Regional Planting Chart

The Reconnection Project

? **DID YOU KNOW** that climate change in Ontario is causing wet spring conditions that can delay planting, drought and hail can reduce crop yields, and without deep freezes in the winter, pests and diseases become more common? Shifts in blooming periods can also put plants out of sync with pollinators. ~Greenbelt Foundation

thank you

As you turn the final page of the *Beginner's Guide to Gardening in Ontario: Vegetable Edition'*, we hope you feel inspired and prepared to nurture your garden.

Share your progress with us! Simply send a photo to the email on the first page and we may even share it in our next newsletter or social media.

Stay tuned for future editions of our guides, and we hope to Reconnect with you in our newsletter, soon!

Special thanks to our partners at Homestead T.O and Environmental Defence.

The Reconnection Project

environmental defence

Homestead T.O.
GROW, EAT, AND LIVE LOCAL
HomesteadTO.com