STRETCHLEARN · WORKBOOK

Gardening for Beginners — Workbook

This workbook turns the course into a real garden. Each section maps to one module, with exercises to do in your actual space, worksheets to capture your site and soil data, and checklists that make good habits automatic. Work through it outdoors with a trowel in one hand, because gardening is learned by doing, observing, and writing down what happened.

Reading Your Site: Sun, Zone, and Space

Measure your sunlight, pin down your frost dates and zone, and choose the growing method that fits your space before buying a single seed.

Exercise: The All-Day Sun Survey

Pick the spot you want to garden and observe it on a clear day. Step outside at 9am, noon, 3pm, and 6pm and note whether that spot is in direct sun or shade each time. Add up the hours of direct sun to classify the spot as full sun, part sun, part shade, or full shade. Optionally use a free app like Sun Seeker to see how the sun's path will shift later in the season.

• How many hours of direct sun does your best spot actually get, and which category does that put it in?

• What is casting shade (a building, fence, tree, upstairs balcony), and can any of it be trimmed or worked around?

• Given your real sun hours, will you grow fruiting crops, leafy greens, or a mix?

Worksheet: Site and Climate Profile

Look up your local data and fill in each field. These numbers anchor every planting decision you will make this season, so keep this sheet handy.

Average last spring frost date (from ZIP/postal lookup)

Average first fall frost date

Frost-free growing days (subtract the two dates)

Hardiness zone (USDA or local equivalent)

Best spot's measured sun hours and category (full/part sun/part shade)

Balcony or bed orientation (S / W / E / N facing)

Known microclimates (warm wall, cold low spot, windy corner)

Nearest water source and distance to the garden

Checklist: Choose Your Growing Setup

[ ] Decide on in-ground, raised bed, or containers based on your soil and space
[ ] If a raised bed, plan a 4-foot max width so you can reach the center from both sides
[ ] If a raised bed, choose at least 10 to 12 inches of depth for most vegetables
[ ] If containers, size up: minimum 5 gallons per tomato or pepper, 1 to 3 gallons for herbs
[ ] Confirm every container has drainage holes
[ ] Keep year one small: one 4x8 bed or 4 to 6 containers, not six beds

Building Living Soil

Test your soil, mix or buy the right growing medium, and start a compost system so your garden is fed from the ground up.

Exercise: The Jar Soil Texture Test

Fill a clear jar one-third with garden soil, top with water, add a drop of dish soap, shake hard for two minutes, and let it settle for a day. Sand drops first, silt next, clay on top. Measure the layers to estimate your soil texture. If you are starting fresh in a bed or containers, instead test your purchased mix for how fast it drains by watering a filled pot and timing how long water takes to run through.

• What are your rough sand, silt, and clay percentages, and is your soil sandy, clay-heavy, or close to loam?

• Based on the result, do you need to add compost to loosen clay or to help sand hold water?

• How fast does your bed or container drain, and does water pool or run straight through?

Worksheet: Soil Test and Amendment Plan

Run a pH and nutrient test (a kit or a lab test from your extension service) and record the results, then note the amendments you will add to hit a 6.0 to 7.0 pH and balanced fertility.

Measured soil pH

Target pH for my crops (6.0 to 7.0 for most veg)

Amendment to adjust pH (lime to raise, elemental sulfur to lower) and amount

Nitrogen / Phosphorus / Potassium readings (low/med/high)

Organic matter level and compost to add

Bed or container volume needed (length x width x depth in cubic feet)

Soil mix recipe chosen (Mel's Mix / bagged potting mix / custom)

Materials and quantities to buy

Checklist: Start a Compost System

[ ] Choose a method: open pile, bin, tumbler, or a worm bin for small spaces
[ ] Set a collection container in the kitchen for greens (scraps, coffee grounds)
[ ] Stockpile browns (dry leaves, straw, shredded cardboard) to add with every greens batch
[ ] Keep a rough 2:1 to 3:1 browns-to-greens ratio by volume
[ ] Keep the pile as moist as a wrung-out sponge
[ ] Turn the pile every week or two, and never add meat, dairy, oils, or pet waste

From Seed to Transplant

Decide what to sow versus buy, start strong seedlings indoors, and harden off and transplant without setbacks.

Exercise: Build Your Backward Sowing Calendar

List the 6 to 10 crops you want to grow. For each, read the seed packet for days to maturity and whether to start indoors or direct-sow. Using your average last frost date as the anchor, count backward to find each indoor sowing date and forward to find direct-sow and transplant dates. Write every date on a physical calendar.

• Which of your chosen crops are direct-sow, and which need an indoor head start or a bought transplant?

• Do any varieties' days to maturity exceed your frost-free days, meaning you need a faster variety?

• Which cool-season crops can go in early and again in fall, and which warm-season crops must wait until after the last frost?

Worksheet: Crop Plan and Spacing Sheet

For each crop you will grow, record the key planting details from the seed packet so planting day is a matter of following your own notes.

Crop and variety (note disease-resistance codes like VFN)

Start indoors or direct-sow

Sowing or transplant date (from your backward calendar)

Planting depth (about twice the seed diameter)

Spacing between plants and rows

Days to maturity and expected harvest window

Cool-season or warm-season

Quantity to plant

Exercise: The Hardening-Off Run

When your seedlings are ready and the weather has turned, harden them off over 7 to 14 days. Set them outside in shade for an hour or two on day one, then add outdoor time and sun exposure a little each day, bringing them in at night until they can take full days and a full night out. Transplant on a cloudy day or in the

evening, handling plants by leaves and rootball.
• How did the seedlings respond as exposure increased, and did any wilt or scorch signaling you moved too fast?

• On transplant day, did you plant at the correct depth (and bury tomato stems deep)?

• Did you water before and after planting and mulch the base to settle the roots?

Checklist: Indoor Seed-Starting Setup
[ ] Use a sterile seed-starting mix, pre-moistened, in cells with drainage
[ ] Position a shop light just 2 to 4 inches above seedlings, 14 to 16 hours daily on a timer
[ ] Use a heat mat at 70 to 75F to speed germination of warm-season crops
[ ] Water from below to avoid dislodging seeds and reduce damping off
[ ] Run a small fan on low to build sturdy stems and prevent fungus
[ ] Begin half-strength feeding once the first true leaves appear

Tending and Harvesting
Water and feed by the plant and the weather, manage pests and disorders with least-toxic methods, and harvest at peak while planning the next round.

Exercise: The Finger Test and Deep-Watering Habit
Instead of watering on autopilot, check the soil first. Push a finger 1 to 2 inches into the bed: water deeply only if it is dry, and wait if it is still damp. When you do water, water at the base in the morning and soak deeply rather than sprinkling. Check any containers daily, since they dry far faster than ground beds.
• How often does your bed actually need water once you check rather than guess?

• Did watering at the base in the morning, with mulch down, reduce how often you needed to water?

• Which plants showed signs of too much or too little water (wilting, yellow lower leaves), and what did you adjust?

Worksheet: Pest and Problem Diagnosis Log
When something looks wrong, scout the plant before you treat it. Record what you see and work through whether it is a pest, a disease, or a watering or weather disorder, then choose the least-toxic response.
Date and affected crop

Symptom (holes, yellowing, spots, wilting, rot)

Where on the plant (new growth, undersides, fruit bottom, whole plant)

Pest seen under a hand lens (aphids, caterpillar, slug, none)

Likely cause (pest / disease / water or heat disorder like blossom end rot)

Least-toxic action chosen (handpick, water blast, row cover, Bt, soap, fix watering)

Result after one week

Checklist: Harvest at Peak

[ ] Pick beans, cucumbers, and zucchini young and often to keep plants producing
[ ] Harvest greens and herbs cut-and-come-again, taking outer leaves first
[ ] Pick tomatoes fully colored but firm; ripen indoors if frost threatens
[ ] Harvest herbs in the morning, before flowering, for best flavor
[ ] Cure winter squash and onions in a dry, airy spot for storage
[ ] Harvest into the cool morning when produce is crisp and hydrated

Checklist: Close the Season and Plan Next Year

[ ] Replant finished spring beds with a fast summer or fall crop (succession)
[ ] Sow a fall round of cool-season greens in late summer
[ ] Rotate crop families so the same bed does not grow tomatoes or brassicas twice running
[ ] Mulch beds or sow a cover crop to protect and feed the soil over winter
[ ] Update your garden journal with what thrived, what failed, and which pests appeared
[ ] Note which varieties to grow more or less of next season

Your Action Plan

1. Week 1: Run the all-day sun survey and complete your Site and Climate Profile, including last and first frost dates.
2. Week 1: Choose your growing setup and keep it small, one 4x8 bed or 4 to 6 containers for year one.
3. Week 2: Test your soil's texture and pH, then mix or buy your growing medium and fill the bed or pots.
4. Week 2: Start a compost or worm bin and set up your kitchen greens container and a brown stockpile.
5. Week 3: Build your backward sowing calendar and fill the Crop Plan and Spacing Sheet for every crop.
6. Week 3: Set up the indoor seed-starting station and sow warm-season crops indoors on schedule.
7. Week 4 to 6: Direct-sow cool-season crops outdoors and tend seedlings under lights until ready.
8. After last frost: Harden off over 7 to 14 days, then transplant on a cloudy evening at correct spacing and depth.
9. All season: Use the finger test to water deeply and infrequently, mulch 2 to 3 inches, and feed containers every 2 to 4 weeks.
10. All season: Scout weekly, log pests and disorders, harvest at peak and often, and record everything in your garden journal for next year.