STRETCHLEARN · WORKBOOK

Composting — Workbook

This workbook turns the course into hands-on practice with your own scraps, yard, and bin. Each section pairs with a course module and mixes guided exercises, fill-in worksheets, and checklists you will use at the pile and the kitchen counter. Work through it with a bin or heap underway, a stash of browns nearby, and ideally a compost thermometer, and keep the templates to balance inputs, log temperatures, track troubleshooting, and run a worm bin.

The Science: Browns, Greens, and the C:N Ratio

Sort your real inputs into browns and greens, balance them toward the ideal ratio, and check moisture by hand.

Exercise: Audit Your Household Inputs

Over a few days, list everything organic your household and garden produce, then label each item brown or green. The goal is to see your real carbon-to-nitrogen supply so you know whether you generate enough browns to balance your greens.

• Which greens do you produce the most of (kitchen scraps, grass clippings, coffee grounds)?

• Which browns can you reliably source (dry leaves, cardboard, straw), and do you have enough to balance the greens?

• Are you short on browns, as most beginners are, and where could you stockpile a reserve?

• Which items on your list belong on the no list, such as meat, dairy, or oily food?

Worksheet: Balance a Batch to the C:N Sweet Spot

Plan one batch of material you will add to the pile and aim for roughly two to three parts browns to one part greens by volume, landing near the 25 to 30 to 1 carbon-to-nitrogen sweet spot. Record your inputs and the resulting balance, then note any adjustment.

Greens included and rough volume

Browns included and rough volume

Brown-to-green volume ratio you ended up with

Does it lean brown (safe, slow) or green (risk of smell)?

Adjustment to reach roughly 2 to 3 parts brown per 1 part green

Browns held in reserve to cap the pile

Checklist: Four-Lever Setup Check

[ ] Inputs blended toward a 25 to 30 to 1 carbon-to-nitrogen balance (more browns than greens)
[ ] Moisture checked by the squeeze test and feels like a wrung-out sponge
[ ] Bulky browns included to hold open air channels for oxygen
[ ] Inputs chopped or shredded to roughly 2 to 5 centimetre pieces
[ ] A brown reserve kept beside the bin to cover every green deposit
[ ] Pile or planned pile is heading toward at least a cubic metre if you want it to heat

Choosing Your System: Bins and Methods

Pick a method and bin that fit your space and effort, site it well, and lock in your yes and no lists.

Exercise: Match a Method to Your Real Life

Honestly assess how much time, space, and material you have, then choose hot, cold, tumbler, or worm composting. The aim is to pick the method you will actually maintain, not the theoretically fastest one.

• How much time per week will you realistically give to turning and managing a pile?

• Do you have space and material for a cubic-metre hot pile, or is a smaller cold bin or worm bin more realistic?

• Do you need to compost indoors or on a balcony, pointing toward vermicomposting?

• Are pests (rats, raccoons) a concern that pushes you toward an enclosed bin or tumbler?

Worksheet: Bin Selection and Siting Plan

Choose your bin and decide exactly where it will go. Site it on bare soil, level, partly shaded, and convenient to the kitchen, with room to turn and harvest.

Bin type chosen (plastic bin, pallet/wire, three-bin, tumbler, worm bin, open heap)

Reason it fits your space and effort level

Location chosen and surface (must be bare soil, not concrete, for a yard pile)

Sun and shade at that spot (aim for partial shade)

Distance from the kitchen door (closer means you keep feeding it)

Pest defences planned (enclosed bin, lid, wire mesh base)

Room left to turn the pile and reach finished compost

Checklist: Yes and No List Locked In

[ ] Greens confirmed: fruit and veg scraps, coffee grounds, tea, eggshells, grass, herbivore manure
[ ] Browns confirmed: dry leaves, straw, plain cardboard and paper, untreated wood chips, dried stalks
[ ] Excluded: meat, fish, bones, dairy, eggs, and oily or greasy foods
[ ] Excluded: dog, cat, and human waste, diseased plants, and seeding weeds (in a cold pile)
[ ] Excluded: glossy or coated paper, treated or painted wood, coal ash, and synthetic materials
[ ] Checked grass and manure sources for persistent herbicide before adding

Building and Running a Pile

Build a layered pile, run it hot or cold, and use a thermometer to time turns and judge readiness.

Exercise: Build a Layered Pile

Construct a pile using the lasagne-layer method: a coarse base, then alternating browns and greens, watering dry layers, and finishing with a brown cap. Keep roughly twice as much brown as green by volume. Work toward at least a cubic metre if you want it to heat.

• What did you use for the coarse base layer for drainage and bottom airflow?

• Did you alternate brown and green layers and water dry layers to a wrung-sponge feel?

• Did you finish with a brown layer on top to control smell and pests?

• Did you inoculate with finished compost or soil to give the pile a head start?

Exercise: Run It Hot, Track the Heat

If running a hot pile, insert a compost thermometer and watch the core climb. Turn the pile when the temperature peaks and starts to fall, moving outer material into the centre, and re-moisten dry spots. Record each reading in the Compost Log template.

• Did the core reach the 55 to 65 degree Celsius hot zone within a few days?

• When the temperature began to fall, did you turn the pile to reheat it?

• Did it ever overshoot past 65 to 70 degrees, calling for a turn to cool it?

• After several heat-and-turn cycles, did it stop reheating, signalling the cure phase?

Worksheet: Is It Finished? Readiness Check

Assess a batch you think is done against the finished-compost signs, and decide whether to harvest or cure longer. Remember to cure for two to four weeks even after the hot phase ends.

Colour (should be dark brown to black)

Texture (should be crumbly, not slimy or matted)

Smell (should be earthy like a forest floor, not sour)

Are original ingredients still recognisable? (should be mostly not)

Temperature (should be cool and staying cool)

Verdict: harvest now or cure longer, and for how long

Checklist: Hot Pile Run-Through

[ ] Whole pile built at once, balanced near 30 to 1, and at least a cubic metre
[ ] Moisture set to a wrung-out-sponge feel throughout
[ ] Thermometer reading confirms the core hit 55 to 65 degrees Celsius
[ ] Pile turned each time the temperature peaked and began to fall
[ ] Dry spots re-moistened during turning

[ ] Turning stopped once the pile no longer reheated
[ ] Compost left to cure for two to four weeks before use

Troubleshooting, Worms, and Using Compost

Diagnose and fix common pile problems, run a worm bin, and apply finished compost correctly.

Exercise: Diagnose and Fix a Problem Pile

Identify any problem your pile shows against the four common failures, trace it to the lever out of range, and apply the matching fix. If your pile is healthy, practice the diagnosis so you can act fast when something goes wrong.

• Which symptom do you see (bad smell, pests, slow/cold, too dry, soggy mat)?

• Which lever is out of range (oxygen, moisture, C:N balance, volume, particle size)?

• What single fix did you apply (add browns and turn, bury food, add greens and water)?

• When will you re-check, and what result tells you the fix worked?

Exercise: Set Up a Worm Bin

Start a vermicompost bin with red wigglers in damp shredded bedding, let them settle a day, then bury small amounts of the right food. Keep it dark, moist as a wrung sponge, and in the 15 to 25 degree Celsius comfort range, and avoid overfeeding.

• Did you use red wigglers (Eisenia fetida) rather than garden earthworms, and roughly how many?

• What bedding did you use, and is it damp like a wrung-out sponge?

• Are you feeding only worm-safe scraps and burying small amounts under the bedding?

• Is the bin in the 15 to 25 degree comfort range, dark, and free of meat, dairy, and heavy citrus?

Worksheet: Compost Application Plan

Plan how you will use a batch of finished compost across your garden, matching the amount to each use. Remember compost is an amendment and mulch, not a stand-alone soil, and use a light hand on lawns and in pots.

Where it will go (beds, planting holes, containers, lawn, mulch, tea)

Application rate for each (e.g. 2 to 5 cm on beds, ~1 cm raked into lawn)

Compost as a fraction of any potting mix (cap around a quarter to a third)

How it will be incorporated (forked in, surface mulch, mixed into backfill)

Amount reserved to inoculate the next pile

Any oversized pieces screened out and returned to the new pile

Checklist: Worm Bin Health Check

[ ] Bin is opaque, lidded, ventilated, and kept out of direct light
[ ] Bedding stays as moist as a wrung-out sponge, never waterlogged
[ ] Temperature held in the 15 to 25 degree Celsius comfort range
[ ] Feeding small amounts buried under bedding, adding more only when the last is being cleared
[ ] No meat, dairy, oily food, or large amounts of citrus, onion, or garlic added
[ ] Bin is nearly odourless and smells earthy, not sour (sour means overfeeding or too wet)
[ ] Castings harvested by migrating worms to fresh food on one side

Your Action Plan

1. Audit your household and garden inputs and sort them into browns and greens.
2. Stockpile a reserve of browns (bagged leaves, shredded cardboard, straw) beside your bin.
3. Choose a composting method and bin that match your real time, space, and pest situation.
4. Site the bin on bare soil, level, partly shaded, and convenient to the kitchen door.
5. Build a layered pile, twice as much brown as green, finishing with a brown cap.
6. If hot composting, track the core temperature and turn each time it peaks and falls.
7. Use the squeeze test to keep moisture at a wrung-out-sponge feel, watering or adding browns as needed.
8. Diagnose any smell, pest, slow, or dry problem and apply the single matching fix.
9. Set up a worm bin with red wigglers if you want to compost kitchen scraps indoors.
10. Confirm compost is finished, cure it two to four weeks, then apply it at the right rate per use.