STRETCHLEARN · WORKBOOK

Landscaping Design — Workbook

This workbook turns the course into a buildable plan for your own yard. Each section pairs with a course module and walks you through surveying and analyzing your site, drawing a concept, sizing hardscape, solving drainage, laying paths and edging, and building a low-maintenance planting scheme. Work through it with a tape measure, graph paper, a line level, and a garden hose in hand, and keep the templates open so your design starts from real dimensions, slopes, and plant data instead of guesses.

Survey and Site Analysis

Measure and draw your property, read its sun, soil, slope, and views, and write the program of spaces the yard must serve.

Exercise: Draw Your Base Plan to Scale

Call 811 (or your local one-call service) first, then measure the property with a 100-ft tape. Locate the house, lot lines, driveway, utilities, and every tree by triangulation from two fixed points. Draw it to scale (1/8 in = 1 ft for most lots) on graph paper, add a north arrow, and make several copies.

• What scale did you choose, and does the whole property fit on one sheet at that scale?

• Which two fixed points did you triangulate trees and features from, and how did you record the two distances?

• Which utilities, doors, windows, and downspouts did you locate, and what did you almost forget?

Worksheet: Site Analysis Overlay

Lay tracing paper over your base plan and record the physical forces on the site. Observe sun across one clear day, run a soil and drainage test, and note slope, wind, and views. Use the site-analysis template to log each reading by area.

Area / zone name

Sun category (full 6+hr / part 3-6hr / shade <3hr)

Soil texture (jar test: sandy / loam / clay)

Soil pH (probe or lab)

Drainage (perc test: inches drained per hour)

Slope direction and any wet low spot

Good view to frame / bad view to screen

Worksheet: Program Brief: Needs vs Wants

Interview the household and list every function the yard should serve. Sort each into a need or a want, note its site requirements, and assign it to a phase. Use the program-and-budget template to rank and cost the list.

Function / outdoor room (e.g. dining, play lawn, screening)

Need or want

Site requirement (sun / shade / privacy / near house)

Approximate area needed (sq ft)

Phase (1 / 2 / 3)

Rough budget allocation

Checklist: Site-Ready Checklist

[ ] 811 / one-call placed and buried utilities marked before any digging
[ ] Lot lines and setbacks taken from the plot plan or survey, not estimated
[ ] Base plan drawn to a stated scale with a north arrow and copied several times
[ ] Sun mapped across a full day into full / part / shade zones
[ ] Soil texture, pH, and drainage (perc) tested and recorded
[ ] Program written as needs vs wants with a realistic phased budget

Concept, Hardscape, and Softscape Balance

Organize the yard into linked outdoor rooms, size the hardscape for real use, and set the hardscape-to-softscape balance.

Exercise: Bubble Diagram to Concept Plan

On tracing paper over your base plan, draw three different bubble diagrams, one circle per program function, exploring different arrangements. Pick the best, give the bubbles scaled shapes, and connect them with circulation. Then test the bed and path lines full-size on the ground with a garden hose.

• How did your three bubble arrangements differ, and why did you choose the one you did?

• How did you separate public, private, and service zones, and is the circulation between rooms direct?

• What changed when you laid out the bed lines with a hose at full scale versus on paper?

Worksheet: Hardscape Sizing Sheet

Size each paved area to real human dimensions before drawing it final. Use the dining-patio, path-width, and step proportions from the course, and confirm the slope-away-from-house pitch. Use the hardscape-sizing template to calculate area and required fall.

Hardscape element (patio / primary path / step / fire-pit area)

Intended use and number of people

Planned length x width (ft)

Calculated area (sq ft)

Clearance check (3 ft beyond chair edges? path 4-5 ft?)

Drainage pitch (1/4 in per ft away from house) and total fall

Worksheet: Hardscape vs Softscape Balance

Measure (or estimate from your scaled plan) the area you are giving to hardscape versus softscape and check the ratio against the roughly 1/3 to 2/3 guideline, flexing for your climate and lot. Use the hardscape-sizing template's balance sheet to total the areas.

Total designed area (sq ft)

Hardscape area (patios, walks, walls, gravel) (sq ft)

Softscape area (lawn, beds, trees, groundcover) (sq ft)

Hardscape % of total

Softscape % of total

Adjustment decision (more hard / more soft) and why

Checklist: Concept-Plan Checklist

- [ ] Plan organized into public, private, and service zones with clear circulation
- [ ] Design principles applied: unity, balance, proportion, a focal point per main view
- [ ] Dining patio sized at 10x10 ft minimum (or larger) with chair clearance
- [ ] Paths sized to use (4-5 ft primary, ~3 ft secondary) and steps at 12-18 in tread / 5-7 in riser
- [ ] Every paved surface pitched ~1/4 in per ft away from the house
- [ ] Hardscape-to-softscape ratio chosen deliberately for the climate and lot

Grading, Drainage, Paths, and Edging

Move water safely off the site, then lay the paths and install the edging that give the garden its lasting lines.

Exercise: Diagnose Your Drainage

During a heavy rain (or with a hose), watch where water sheets, pools, and runs toward the house. Measure the slope around the foundation with a line level on a string, calculating fall over distance. Decide whether each problem is surface or subsurface water.

• Does the ground fall at least 6 in over the first 10 ft away from the foundation? If not, what is the actual grade?

• Where does water pool or stay wet 24+ hours after rain, and where does it run toward the building?

• For each problem area, is it surface water (sheeting on top) or subsurface (soil stays saturated), and what fix does that point to?

Worksheet: Drainage Solution Plan

For each drainage problem, choose the matching fix from the course toolkit and specify it. Always identify the lower outlet the water will reach. Use the drainage-plan template to record each measure and its outlet.

Problem area

Surface or subsurface water

Chosen solution (regrade / swale / French drain / channel drain / dry creek / dry well)

Key dimension (e.g. trench 12-18 in deep, 2% slope)

Lower outlet the water discharges to

DIY or professional / permit needed?

Worksheet: Path and Edging Spec

Specify each path's surface and base and the edging that will contain your beds and materials. Remember loose materials need a physical edge and solid paths need a 4-6 in gravel base. Use the path-and-edging template to list materials and quantities.

Path / bed run

Surface material (pavers / flagstone / gravel / stepping stones)

Base build (gravel depth + sand bedding)

Path width (ft)

Edging type (steel / brick / stone / spade-cut)

Mowing-strip / flush-set so the mower rides over it? (Y/N)

Checklist: Grading, Drainage & Hardscape-Build Checklist

- [ ] Ground re-graded to fall at least 6 in over the first 10 ft away from the foundation
- [ ] Each drainage measure has an identified, legal lower outlet (not a neighbor's lot)
- [ ] Downspouts extended at least 4-6 ft from the foundation, ideally to a rain garden or dry well
- [ ] Solid paths built on 4-6 in compacted gravel plus ~1 in bedding sand, jointed and slightly sloped
- [ ] Loose materials (gravel, bark) contained by a physical edge
- [ ] Edging set on a level base, flush enough for the mower, holding a crisp line

Planting Design and Low-Maintenance Schemes

Choose climate-matched plants for the job, arrange them in layers and seasons, and engineer the scheme for minimal upkeep.

Worksheet: Right-Plant-Right-Place Selection Sheet

For each spot or bed, write the job the plant must do first, then select a climate-appropriate plant whose five needs (hardiness, light, water, soil/pH, mature size) match the site analysis. Favor native and adapted plants. Use the planting-plan template to build the plant list.

Bed / location

Job the plant must do (shade / screen / groundcover / color / barrier)

Plant chosen (common + botanical name)

Hardiness zone and light/water/pH match to site

Mature size (height x spread) and spacing

Native or well-adapted? (Y/N)

Exercise: Compose One Layered, Four-Season Bed

Design a single bed in vertical layers (canopy, understory/shrub, perennial/grass, groundcover), planting in odd-numbered masses and repeating key plants. Sequence bloom across the seasons and include evergreen/structural plants (aim for roughly a third) for winter bones.

- What plant fills each layer, and are taller plants placed behind (or center) for the way the bed is viewed?
- Which plants did you mass in 3s, 5s, or 7s, and which one or two did you repeat across the garden for unity?
- What is in bloom or providing structure in each season, and is enough of the bed evergreen for winter?

Worksheet: Low-Maintenance Design Audit

Score your whole scheme against the low-maintenance levers from the course: adapted plants spaced for mature size, minimized lawn, full groundcover and mulch, drip irrigation, and hydrozoning. Use the low-maintenance-audit template to tally area and water zones.

Total lawn area kept and its specific use

Lawn area converted to beds / groundcover / gravel / paving (sq ft)

Bare soil covered by groundcover + 2-3 in mulch? (Y/N)

Irrigation type (drip on timer / soaker / hose)

Number of hydrozones (plants grouped by water need)

Any high-care plants flagged to replace (shearing / staking / dividing)

Checklist: Planting & Low-Maintenance Checklist

[ ] Every plant chosen by right-plant-right-place: light, water, soil/pH, hardiness, and mature size matched to its spot
[ ] Plants selected for a defined job, favoring native and well-adapted species
[ ] Beds designed in layers (canopy to groundcover) with plants massed in odd numbers and key plants repeated
[ ] Four-season interest planned with roughly a third evergreen / structural for winter bones
[ ] Lawn shrunk to used areas; bare soil covered with groundcover and 2-3 in mulch
[ ] Drip irrigation on a timer with plants grouped into hydrozones by water need

Your Action Plan

1. Call 811, then survey the property and draw an accurate base plan to scale with a north arrow; make copies.
2. Lay a tracing-paper overlay and record sun, soil texture, pH, drainage, slope, wind, and views.
3. Write a program brief sorted into needs and wants, with a phased, realistic budget reserving money for drainage and grading first.
4. Sketch bubble diagrams, refine the best into a concept plan, and test bed and path lines full-size with a hose.
5. Size every patio, path, and step to real human dimensions and pitch all paving 1/4 in per ft away from the house.
6. Set the hardscape-to-softscape balance deliberately (around 1/3 to 2/3, flexed for climate and lot).
7. Diagnose drainage (surface vs subsurface), then regrade and specify swales, French drains, or a dry creek bed, each with a lower outlet.
8. Lay paths on a 4-6 in gravel base and install edging that contains materials and lets the mower ride over it.
9. Build a right-plant-right-place plant list by job, then design layered, four-season beds massed in odd numbers with repeated key plants.
10. Engineer low maintenance: shrink the lawn, cover all soil with groundcover and mulch, and install drip irrigation grouped into hydrozones.