STRETCHLEARN · WORKBOOK

Pottery & Ceramics — Workbook

This workbook turns the course into studio practice. Each section maps to a course module and gives you exercises to build skills, worksheets to record what actually happens with your clay and kiln, and checklists to make safe, sound results repeatable. Work through it with clay in front of you, and keep your filled-in pages as your personal studio reference.

Clay, Tools, and Hand-Building Foundations

Choose a clay body, set up a safe space, and build your first scored-and-slipped functional forms.

Exercise: The Three-Form Hand-Building Set

In one session, make one pinch pot, one coil vessel, and one slab box, each at least 8 cm tall. Use the same clay body for all three. Score and slip every join, keep walls under 1 cm, and dry the pieces slowly under loose plastic. Take a photo of each form's wall cross-section by cutting a scrap test piece to confirm even thickness.

• Which form held its shape best, and which warped or cracked, and why do you think so?

• Where on each piece did you feel a join might be weak, and did it survive drying?

• How even were your walls when you cut a test piece, and what would you change next time?

Worksheet: Clay Body Selection Sheet

Before buying clay, fill this out from the supplier spec sheet for two candidate clay bodies, then circle the one you will commit to for your first three months.

Clay body name and supplier

Firing range (cones)

Maturing cone for functional ware

Shrinkage percentage (wet to fired)

Absorption percentage (must be under 2 percent for dinnerware)

Color when fired

Texture (smooth, sandy, grogged)

Recommended use (throwing, hand-building, sculpture)

Price per kg or per box

Your decision and reason

Checklist: Studio Safety and Setup Checklist

[ ] I have an N95 or P100 respirator and wear it when mixing dry powders or sanding dry work
[ ] I wet-mop and damp-wipe surfaces and never sweep dry clay dust
[ ] I have a wedging surface I can wipe clean
[ ] I have set up wet, forming, and drying zones
[ ] My drying shelf is away from direct sun, heater vents, and drafts
[ ] I have the starter toolkit: wire cutter, ribs, needle tool, knife, trimming tools, sponge
[ ] I have a damp box or covered tub to slow drying
[ ] I keep a dedicated apron and shoes in the studio

Wheel-Throwing Fundamentals

Wedge, center, and throw cylinders and bowls to repeatable dimensions.

Exercise: Centering Ladder and First Cylinders

Spend the first 20 minutes only centering balls of 0.5 to 1 kg until each one runs smooth and still under your braced hands. Then throw five cylinders in a row, recycling between attempts. Target the fifth at 10 to 12 cm tall with even 6 mm walls. Do not aim for keepers; aim for repetition.

• How many attempts did it take before centering felt steady rather than effortful?

• On which pull did your wall collapse, and was it water, speed, or too many pulls?

• Compare cylinder one and cylinder five: what specifically improved?

Worksheet: Throwing Log

Fill out one row per thrown pot during a session so you can connect clay weight to finished dimensions over time.

Date

Clay weight (kg)

Form (cylinder, bowl, plate)

Wheel speed used (fast, medium, slow)

Number of pulls

Finished height (cm)

Finished width (cm)

Wall thickness at rim (mm)

Outcome (keeper, recycle, collapsed)

One thing to change next time

Checklist: Pre-Throw Readiness Checklist

[ ] Clay is wedged 15 to 30 times with no visible air pockets
[ ] Clay is slapped down close to the center of the wheel head
[ ] My elbows are braced against my thighs or the splash pan
[ ] Water and a sponge are within reach
[ ] I am starting with 1 kg or less of clay
[ ] I plan to compress the floor and rim on every form
[ ] Calipers are ready if I am making a matching set

Exercise: Matching Bowl Pair

Throw two cereal-sized bowls from 1 to 1.5 kg each, using calipers to match rim diameter within half a centimeter. Set the inside curve in one continuous sweep with a rounded rib and leave a thicker base for trimming a foot later.

• How close did the two rim diameters end up, and what threw off the match?

• Is the inside curve continuous, or is there an angle where the floor meets the wall?

Trimming, Surface, and Glaze Chemistry

Trim leather-hard feet, understand glaze as glass, and apply glaze for predictable, food-safe results.

Exercise: Trim a Foot Ring

Take a leather-hard cylinder or bowl, invert and recenter it on the wheel, secure it, and trim a foot ring with inner and outer walls. Aim for a finished weight that matches a mug or bowl you admire. Stop well before the floor thickness you noted when opening the form.

• What was your noted floor thickness, and how close did you trim to it without breaking through?

• Does the trimmed pot feel intentional and balanced in the hand, or top-heavy?

• How does its weight compare to a reference pot you measured?

Worksheet: Glaze Test Tile Record

Make and fire test tiles before committing pots to a glaze. Record one row per tile, including how many coats and where you saw faults.

Glaze name or recipe

Cone fired to

Clay body used

Application method (dip, pour, brush)

Number of coats or dip seconds

Resulting color and surface (glossy, matte, satin)

Did it craze? (yes or no)

Did it run? (yes or no)

Food-safe verdict for this body

Notes and keep or discard

Checklist: Glaze Application Checklist

[ ] Pot is bisque-fired and clean of dust
[ ] Glaze bucket is stirred thoroughly right before dipping
[ ] I am applying roughly one to two credit-card thicknesses
[ ] The foot ring and lowest few millimeters are wiped clean or waxed
[ ] Overlaps of two glazes are kept above the foot
[ ] Glaze is fully dry before the pot goes into the kiln
[ ] I tested this glaze or combination on a tile first

Firing, Finishing, and Selling Your Work

Fire bisque and glaze cycles with cones, diagnose faults, and bring finished work to market.

Exercise: Run and Log a Glaze Firing

Load a glaze firing with witness cones on the shelf, spacing glazed pots apart with clean feet. Fire to your clay and glaze cone, cool slowly, and unload only below about 100 C. Record the result in the kiln log and inspect every piece for faults.

• Did the witness cone confirm the kiln reached its target, and did the controller agree?

• Which faults appeared (crazing, pinholes, runs, underfiring), and what likely caused each?

• What one change to drying, application, or schedule would prevent the worst fault next time?

Worksheet: Kiln Firing Log

Keep one entry per firing. Over time these entries turn random faults into solvable patterns.

Date

Firing type (bisque or glaze)

Target cone

Schedule summary (candle, ramp rate, hold or soak)

Witness cone result

Number and type of pieces loaded

Faults observed

Successes worth repeating

Adjustment for next firing

Worksheet: Single-Piece Pricing Worksheet

Price one finished piece honestly by filling each line, then carry the totals into the pricing template. Do not skip labor or breakage.

Piece name and size

Clay weight (kg) and clay cost

Glaze cost estimate

Firing share (firing cost divided by pieces in load)

Labor time (hours) and your hourly rate

Labor cost (time times rate)

Breakage and seconds allowance

Total cost (sum of above)

Wholesale price (equals total cost)

Retail price (wholesale doubled)

Checklist: Ready-to-Sell Checklist

- [ ] Piece is fully vitrified and food-safe where it contacts food or drink
- [ ] No crazing on functional interior surfaces
- [ ] Foot is smooth and will not scratch a table
- [ ] I have clean photos in soft daylight on a neutral background
- [ ] Photos show scale, use, and the maker's mark
- [ ] Price covers materials, firing, labor, and breakage with a margin
- [ ] I have chosen a sales channel (market, online shop, or wholesale)
- [ ] Fragile shipping or safe transport is planned

Your Action Plan

1. Choose one cone 5 to 6 stoneware clay body using the Clay Body Selection Sheet and buy a single box to start
2. Set up a safe studio space and complete the Studio Safety and Setup Checklist before opening clay
3. Build the three-form hand-building set and practice the score-and-slip join until joins survive drying
4. Spend two to four sessions only wedging and centering before chasing finished thrown pots
5. Throw five cylinders, then a matching bowl pair, logging every piece in the Throwing Log
6. Trim feet on your best leather-hard pots, matching the weight of a reference pot you admire
7. Test two or three commercial cone 6 food-safe glazes on tiles and record them before glazing real pots
8. Bisque fire, then glaze fire with witness cones, logging both firings and diagnosing any faults
9. Price three finished pieces with the Pricing Worksheet so the numbers cover labor and breakage
10. List or show your first small batch through one chosen sales channel and gather buyer feedback