STRETCHLEARN · WORKBOOK

Chocolate Making — Workbook

This workbook turns the course into deliberate practice at your own bench. Each section matches a course module and asks you to source real couverture, calibrate your thermometer, temper dark, milk, and white to their curves, build ganache to weighed ratios, and roll truffles, mould bonbons, and enrobe centres. Work through it alongside actual chocolate and you will finish able to temper reliably and confirm it with a smear test, mix ganache to a known firmness, and produce glossy, snapping confections, with logs so your good batches repeat.

Chocolate, Tools, and the Science of Temper

Source the right couverture, assemble the kit that matters, and prove you understand what tempering is doing before you melt a thing.

Worksheet: Couverture sourcing sheet

Before buying, record the couverture you intend to use so you choose the right chocolate for the job and learn its working figures. Prefer real couverture in callets over supermarket chips, and start with dark for your first sessions.

Brand and product name

Type (dark / milk / white)

Cocoa percentage (%)

Cocoa butter content / fluidity (drops, if shown)

Form (callets / pistoles / block to chop)

Printed tempering curve on the bag (melt / cool / work)

Intended use (moulding / enrobing / ganache / truffles)

Storage location and temperature (aim 12-18 C, away from smells)

Worksheet: Chocolatier kit audit

Lay out everything you own and fill in what you have versus the beginner kit, so you buy only the gaps. Prioritise an accurate digital thermometer and polycarbonate moulds over anything else.

Accurate digital / infrared thermometer? (yes / no — buy this first)

Melting method (bain-marie / microwave / both)

Marble or granite slab for tabling? (yes / no — counter works for seeding)

Polycarbonate bonbon moulds owned (count / cavity shapes)

Dipping fork(s) and offset palette knife? (yes / no)

Bench scraper and cotton wool for polishing moulds? (yes / no)

Gram scale and disposable piping bags? (yes / no)

Room thermometer + small fan for a cool workspace? (yes / no)

Exercise: Bloom and crystal recognition drill

Deliberately make untempered chocolate so you can recognise failure on sight. Fully melt a small amount of couverture, pour a thin patch onto parchment, and let it set on the counter with no tempering. Beside it, set a patch of chocolate straight from the bag (in temper). Compare after an hour and again the next day.

• How did the untempered patch look and feel compared with the tempered one (gloss, snap, smear on fingers)?

• Did the untempered patch develop pale grey fat bloom over a day, and where did it appear first?

• Can you now state, in your own words, the two jobs of tempering (build stable crystals, melt out unstable ones)?

Checklist: Safe-and-ready check

[ ] Working in the coolest part of the day, room around 18-20 C
[ ] Every bowl, spatula, mould, and fork bone-dry (no water near chocolate)
[ ] Couverture is real chocolate, not compound or chip-with-stabilisers
[ ] Thermometer to hand and known to be accurate
[ ] Polycarbonate moulds polished with cotton wool, no fingerprints
[ ] Couverture stored sealed, cool, and away from strong smells
[ ] No lid placed over warm chocolate that could drip condensation
[ ] Beginner plan is to learn on dark first, then milk, then white

Tempering Chocolate by the Numbers

Calibrate your thermometer, temper each chocolate to its curve by the seeding method, and confirm every batch with a smear test before committing it.

Exercise: Thermometer calibration drill

A two-degree error ruins a temper, so verify your thermometer before you trust it. Make a slurry of crushed ice and a little water, stir, and read it; it should show 0 C. Note any offset and apply it to every reading. Repeat with the thermometer you will actually use at the bench.

• What did your thermometer read in an ice-water slurry, and what is your correction offset?

• If your device reads high or low, how will you adjust the curve numbers to compensate?

• Does your infrared thermometer read the chocolate surface consistently, or do you need to stir and re-read?

Exercise: Seeding-method temper drill (dark)

Temper a small batch of dark couverture by seeding. Melt about three-quarters to 45-50 C, stir in the reserved quarter of callets, cool to 28-29 C, then gently rewarm to a 31-32 C working window. Stir, do not whisk, and lift out any undissolved seed. Run a smear test before deciding it worked.

• What three temperatures did you actually hit (melt / cool / work), and how did they compare with 45-50, 28-29, 31-32?

• Did stirring in seed thicken the chocolate as Form V built, and did the rewarm stay below 34 C?

• On the smear test, did it set hard and glossy in 3-5 minutes and snap when bent?

Worksheet: Temper batch log

Record every temper so a good result becomes repeatable rather than lucky. Note the room, the brand, the curve you hit, and how the smear test set.

Date and room temperature (C)

Chocolate type and brand

Method used (seeding / tabling / machine)

Melt temp reached (C)

Cool temp reached (C)

Working temp held (C)

Smear test result (set time / gloss / snap)

In temper? (yes / no) and what to change next time

Checklist: Curve-by-type quick check

[ ] Dark: melt 45-50 C, cool 28-29 C, work 31-32 C
[ ] Milk: melt 45 C, cool 27-28 C, work 29-30 C
[ ] White: melt 40-45 C, cool 26-27 C, work 28-29 C
[ ] Bag's printed curve trusted over the general ranges when given
[ ] Milk and white melted gently with constant stirring (they scorch fast)
[ ] Working temperature held the whole time, never allowed to climb past the limit
[ ] Bowl nudged warm and stirred when it cooled below the working window
[ ] Smear test passed before moulding or dipping a full batch

Ganache and Truffles

Build ganache to weighed ratios for each job, infuse and flavour the cream, then roll and finish a tray of truffles three ways.

Exercise: Two-ratio ganache drill

Make two small dark ganaches by weight: one at 1:1 (soft, for rolled centres) and one at 2:1 chocolate to cream (firm, for piping and moulding). Heat the cream to a steaming 80-90 C, pour over weighed chocolate, rest one to two minutes, then stir from the centre out into a glossy emulsion. Let each set and compare.

• Did you weigh both chocolate and cream on a gram scale rather than eyeballing them?

• How did the 1:1 and 2:1 differ once set (scoopable versus firm enough to cut and pipe)?

• If either emulsion broke (oily or split), did a splash of warm cream or a stick blender bring it back glossy?

Worksheet: Ganache formula sheet

Record each ganache you make so a ratio and its flavour are repeatable, and note the firmness and best use.

Chocolate type and weight (g)

Cream weight (g) and resulting ratio (e.g. 2:1)

Flavour and where added (infused cream / stirred in / puree folded)

Butter or glucose added? (amount, for shine and shelf life)

Emulsion came together glossy? (yes / no — fix used)

Set firmness (pourable / scoopable / pipeable / cuttable)

Best use (truffle centre / moulded filling / glaze)

Make date and storage (perishability noted)

Exercise: Truffle rolling and three finishes

Set a 2:1 dark ganache until scoopable, pipe or scoop even portions, chill, then roll into rough balls with cocoa-dusted palms. Finish a third in cocoa powder, a third rolled in tempered chocolate then chopped toasted nuts, and a third hand-dipped in a thin tempered shell with a dipping fork.

• Did chilling the centres firm enough to handle, and did you roll fast so body heat did not melt them?

• For the shelled third, did tapping the fork leave a thin even coat, and did it set with gloss and snap?

• If a coating slid off or a shell cracked, what was the cause (centre too cold and sweating, glue already set, or contracting against a warm shell)?

Checklist: Flavour-and-keeping check

[ ] Aromatics (tea, coffee, zest, spice, herbs) infused into hot cream and strained out
[ ] Spirits and extracts stirred into finished ganache at about 35 C to keep aroma
[ ] Fruit puree or extra alcohol balanced with more chocolate to keep the set
[ ] Glucose or invert sugar and a little butter added for smoother texture and shelf life
[ ] Bare cream-ganache truffles treated as perishable (kept cool, sealed, dated)
[ ] Shelled or fully sealed fillings noted as keeping longer than bare ones
[ ] Refrigerated chocolates warmed to room temperature inside a sealed box before opening
[ ] All dairy fillings made in a clean kitchen and labelled with a make date

Moulded Bonbons, Enrobing, and Finishing

Mould glossy shelled bonbons with clean release, enrobe cut centres by hand, decorate with restraint, then store, package, and cost a box for sale.

Exercise: Shelled bonbon moulding drill

Polish a polycarbonate mould with cotton wool, fill cavities with tempered chocolate, tap out air, invert and drain to a thin even shell, and scrape flush. Once set, fill with cooled ganache (30 C or below) to 2-3 mm below the rim, let it crust overnight, then cap with fresh tempered chocolate and release.

• Could you just see light through the edge of the shell, or was it too thick or too thin?

• Did you cool the ganache below body temperature before filling so it did not melt the walls?

• On release, did the cavities darken and the bonbons drop out glossy, or did they stick and look dull (out of temper or mould too warm)?

Exercise: Hand-enrobing drill

Cut a firm ganache slab into even squares with a warmed knife and chill them. Dip each into tempered chocolate, push under with a fork, tap and drain to a thin even coat, scrape the underside on the rim, and set on parchment. Add one decoration to wet chocolate (transfer sheet, single nut, or a fork mark) before it sets.

• Was your coat thin and even with a tidy foot, or did a thick foot show you left too much chocolate on?

• Did the centre stay sealed, or did it show through (coat too thin or centre too warm)?

• Which decoration on wet chocolate gave the cleanest, most professional-looking top?

Worksheet: Bonbon production record

Log each batch of moulded or enrobed chocolates so faults trace to a cause and good runs repeat.

Date and chocolate type / temper status

Method (moulded shell / hand-enrobed)

Centre and ratio used

Coloured cocoa butter / decoration applied

Shell thickness or coat (just-translucent / too thick / too thin)

Release / set quality (clean & glossy / stuck / dull)

Fault seen and likely cause (fingerprints / bubbles / leak / bloom)

Yield (count) and notes for next batch

Checklist: Store, package, and sell-ready check

[ ] Chocolates stored cool, dark, and dry at 15-18 C, low humidity
[ ] Kept sealed and away from strong smells (cocoa butter absorbs odours)
[ ] Never put warm or fresh chocolate straight into a cold fridge
[ ] Refrigerated perishable fillings warmed to room temp sealed before opening
[ ] Chocolates laid in cups inside a rigid box so they cannot slide and scuff
[ ] Realistic best-before date set by filling type (bare ganache ~2 weeks; sealed longer)
[ ] Allergens declared (milk, soy lecithin, nuts; shared-equipment gluten)
[ ] Local cottage-food / home-business rules checked before selling
[ ] Box costed honestly: ingredients + packaging + labour + margin

Your Action Plan

1. Source real couverture in callets (start with dark), record its printed tempering curve, and buy any kit gaps, prioritising an accurate digital thermometer and polished polycarbonate moulds.
2. Calibrate your thermometer in ice water, note the offset, and set up a cool, dry, bone-dry workspace around 18-20 C with a room thermometer and small fan.
3. Make one untempered patch beside one in-temper patch to learn bloom and snap on sight, fixing the two jobs of tempering firmly in mind.
4. Temper dark couverture by seeding to its 45-50 / 28-29 / 31-32 C curve, then confirm with a smear test that sets glossy and snaps in 3-5 minutes; repeat for milk and white at their lower curves.
5. Build two dark ganaches by weight, a soft 1:1 and a firm 2:1, bringing each into a glossy emulsion and rescuing any split batch with warm cream or a stick blender.
6. Infuse a flavour into the cream and add a spirit or glucose to a batch, noting how each change affects set and shelf life, and treat every dairy filling as perishable and dated.
7. Roll a 2:1 ganache into truffles and finish them three ways: dusted in cocoa, rolled in tempered chocolate then chopped nuts, and hand-dipped in a thin tempered shell.
8. Mould shelled bonbons in polished polycarbonate: cast a just-translucent shell, fill with cooled ganache below the rim, crust overnight, cap, and release glossy chocolates.
9. Enrobe cut ganache squares by hand to a thin even coat with a tidy foot, decorating tops with a single restrained finish such as a transfer, a nut, or a fork mark.
10. Store finished chocolates cool, dark, dry, and sealed; package them in cups inside a rigid box with a realistic best-before date and declared allergens; then cost a box (ingredients + packaging + labour + margin) and log every batch's recipe, ratios, temperatures, and result.