

# Sourdough Baking — Workbook

This workbook turns the Sourdough Baking course into a real bake. Each section follows a course module, giving you the exercises, worksheets, and checklists to raise a starter, calculate a formula, ferment and shape, then bake and diagnose a boule. Fill it in as you go, and the editable templates become your reusable starter log, formula calculator, and bake record for every loaf that follows.

## The Starter: Building and Keeping Your Wild Yeast

Raise a starter from scratch, learn to read its peak, and keep it strong and stored.

### Checklist: Seven-Day Starter Build Checklist

- Day 1: mix 50 g whole wheat or rye flour with 50 g non-chlorinated water at about 28 degrees Celsius in a clear jar
- Cover loosely and keep at 24 to 27 degrees Celsius, such as in an oven with only the light on
- Days 2 to 4: discard all but about 50 g, then feed 50 g flour and 50 g water daily
- Day 5 onward: switch the feed to unbleached bread or all-purpose flour and feed once or twice daily
- Mark the jar with a rubber band at feeding height to track the rise
- Confirm it doubles within 4 to 8 hours and smells tangy, not putrid
- Run a float test before declaring it ready

### Worksheet: Starter Birth Log

Record each day of the build so you can see the population shift from the early *Leuconostoc* burst to the real bakers' culture. Note temperature, since it drives the timeline.

Day number and date

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Feed flour used (whole wheat, rye, bread, all-purpose)

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Feed amounts (starter g / flour g / water g)

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Ambient temperature at the jar

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Rise observed (none, slight, doubled, collapsed)

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Hours from feed to peak

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Aroma (none, sour, alcohol, yogurt-like, foul)

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Float test result (floats / sinks / not yet tried)

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## Exercise: Choose Your Feeding Ratio

Decide how you will maintain the established starter based on how often you bake and how warm your kitchen is. Justify the ratio against the course guidance.

- How many days a week will you bake, and does that favour a fast 1:1:1 feed or a slower 1:5:5 feed?

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- What is your typical kitchen temperature, and how will it speed up or slow down the peak time at your chosen ratio?

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- How small a mother starter can you keep between bakes to reduce flour waste while still building enough levain?

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- What will you do with the discard so the starter is not wasteful?

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## Checklist: Store and Revive a Starter

- To store: feed, let it rise an hour or two, then cover and refrigerate at about 4 degrees Celsius
- Dry a tablespoon of healthy starter into flakes as a cupboard backup
- To revive: discard most of it and feed 1:5:5 at room temperature
- Feed again every 12 hours until it doubles within 4 to 8 hours
- Run a float test to confirm full strength before baking
- Distinguish hunger signs (hooch, sour or acetone smell, flat top) from spoilage (fuzzy or pink mould)
- Discard only if you see fuzzy coloured mould or a pink slimy streak or a truly rotten smell

## Ingredients and the Formula: Flour, Water, and Baker's Percentages

Pick your flour, master baker's math, and build a levain on a timeline.

### Exercise: Pick Your Flour Blend

Choose the flour for your first boule using the course protein and grain guidance, and decide on any whole-grain fraction.

- Which bread flour will you use, and what is its protein percentage (for example King Arthur Bread Flour at about 12.7 percent)?

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- Will you blend in whole wheat or rye, and at what percentage of total flour (the course suggests 10 to 25 percent whole wheat for beginners)?

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- Why does a higher-protein, unbleached flour give a more forgiving first loaf than all-purpose or bleached flour?

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- How might your chosen flour's absorption change how wet the dough feels at your target hydration?

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## Worksheet: Baker's Percentage Calculator Worksheet

Convert your target dough weight into ingredient grams. Set flour to 100 percent, choose your other percentages, sum them, then divide and multiply as the course shows. Leave the gram results to compute yourself.

Target finished dough weight (g)

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Hydration (water as percent of flour)

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Salt (percent of flour, around 2)

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Starter or levain (percent of flour)

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Sum of all percentages (100 + water + salt + starter)

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Flour weight (target dough weight divided by the percentage sum as a decimal)

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Water weight (flour weight times hydration percent)

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Salt weight (flour weight times salt percent)

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Levain weight (flour weight times levain percent)

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### Checklist: Bake-Day Levain Build

The night before, build the levain your formula needs, for example 20 g mother starter, 50 g flour, 50 g water

Leave it covered at room temperature for 8 to 12 hours depending on warmth

Note the kitchen temperature so you learn your starter's clock

In the morning, confirm it has peaked: domed, bubbly, roughly doubled

Run a float test before mixing it into the dough

If it has collapsed or smells sharply of alcohol, refeed and wait rather than using it under-ripe

### Worksheet: Two-Day Bake Timeline Planner

Map your bake around the levain so the dough is never ready at an inconvenient hour. Fill in real clock times for your kitchen.

Evening 1: levain build time and ingredients

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Expected levain peak time (based on kitchen temperature)

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Morning 2: mix and autolyse time

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Bulk fermentation window (start and expected end)

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Afternoon 2: pre-shape, bench rest, and final shape times

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Cold retard start time (into the fridge)

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Morning 3: preheat and bake time

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Notes on kitchen temperature each day

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## Mixing and Bulk Fermentation: Autolyse to Stretch-and-Fold

Mix and autolyse, develop the dough with folds, and judge bulk by rise and temperature.

### Checklist: Autolyse and First Mix

- Weigh flour and most of the water and mix to a shaggy mass with no dry flour
- Cover and rest 30 to 60 minutes at room temperature
- Add the ripe levain and a little reserved water, squeezing to incorporate
- Add the weighed salt and the last of the water, working it through with wet hands
- Confirm the dough feels cohesive and slightly elastic before the first fold
- Keep wet hands and a bowl scraper close to manage the sticky dough

### Worksheet: Stretch-and-Fold Set Log

Record each fold set and how the dough changes, so you can feel the gluten developing across the first two hours of bulk. Note the windowpane result when you test it.

Mix completion time and dough temperature

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Set 1 time and dough feel (slack, smoothing, tighter)

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Set 2 time and dough feel

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Set 3 time and dough feel

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Set 4 time and dough feel (if performed)

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Fold type used (stretch-and-fold or coil)

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Windowpane test result (tears / thins to translucent)

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Surface appearance after the last set (puddly / domed and smooth)

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### Exercise: Hit a Target Dough Temperature

Use the desired dough temperature idea from the course to make your bulk timing repeatable. Show your reasoning.

- What dough temperature are you targeting (the course suggests about 24 to 25 degrees Celsius)?  

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- What are your current flour and room temperatures, and is your mixing water warmer or cooler than the target?  

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- Will you warm or cool the mixing water to pull the dough toward your target, and roughly by how much?  

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- Given your actual dough temperature, do you expect bulk to run faster or slower than a recipe's stated time?  

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### Worksheet: Bulk Fermentation Rise Tracker

Judge the end of bulk by percent rise, not the clock. Use a straight-sided container marked at the post-mix level and record the growth and feel over time.

Post-mix dough level marked (yes / no) and time

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Dough temperature during bulk

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Hourly volume estimate (percent above the start line)

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Texture (dense, becoming billowy, jiggly and aerated)

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Surface bubbles observed (none, a few, many)

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Target percent rise to end bulk (50 to 75 percent for a beginner)

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Actual percent rise at end of bulk

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End-of-bulk time and total bulk duration

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## Shaping, Retarding, Scoring, and Baking

Shape a tight boule, retard overnight, score, bake in a Dutch oven, and read the crumb.

### Checklist: Pre-Shape and Final Shape

- Turn the dough onto a lightly floured counter, smooth top up
- Pre-shape into a loose round and bench rest 20 to 30 minutes under a cloth
- Final shape: fold the edges into the centre to build a taut surface
- Drag the boule across an unfloured patch to tighten the skin
- Check the surface is smooth and taut with no large trapped bubbles
- Dust the banneton or cloth-lined bowl with rice flour
- Place the loaf seam-side up into the basket for its final proof

### Checklist: Cold Retard and Score

- Cover the shaped loaf and refrigerate at about 4 degrees Celsius for 12 to 18 hours
- Bake straight from the fridge; no need to warm the loaf first
- Turn the cold loaf onto parchment, seam-side down and smooth top up
- Hold a lame or fresh razor blade at about a 45 degree angle
- Make one swift, decisive slash about one centimetre deep in a single stroke
- Add any shallow decorative cuts only after the main expansion cut
- Move the loaf, parchment and all, into the preheated Dutch oven

### Worksheet: Dutch Oven Bake Record

Log the bake so you can repeat a great loaf and adjust a poor one. Record temperatures and times, and confirm doneness by internal temperature, not the clock alone.

Preheat temperature and preheat duration (pot fully heated)

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Covered bake temperature and time

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Uncovered bake temperature and time

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Crust colour at the end (pale, golden, deep brown)

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Internal temperature at removal (target about 96 to 99 degrees Celsius)

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Oven spring observed (low, moderate, strong)

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Ear formation (none, slight, pronounced)

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Cooling time before slicing (target one to two hours)

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### Exercise: Read the Crumb and Plan the Next Loaf

Slice the cooled loaf, photograph the crumb, and trace any fault back to a specific earlier step using the course troubleshooting guide.

- Is the crumb open but even, or dense and gummy (pointing to underproofing, a weak starter, or slicing too hot)?
  - Did the loaf spread flat with a wild, pale crumb (pointing to overproofing or under-shaping)?
  - Was there a large gap or tunnel under the top crust (pointing to under-shaping or too cool a bake)?
  - Which single step will you change on the next loaf, and what specific result do you expect from that change?
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### Your Action Plan

1. Build a starter from whole grain flour and water, feeding daily until it doubles in 4 to 8 hours and passes the float test
2. Settle on a maintenance ratio and store the starter in the fridge between bakes, keeping a dried backup
3. Choose an unbleached bread flour and a whole-grain fraction, then write your formula in baker's percentages
4. Build a levain the night before so it peaks when you plan to mix, and map a two-day timeline
5. Mix and autolyse 30 to 60 minutes, then add levain and salt and target a dough temperature near 24 to 25 degrees Celsius
6. Develop the dough with three to four stretch-and-fold sets over the first two hours of bulk
7. Judge bulk by a 50 to 75 percent rise in a marked container, not by the clock
8. Pre-shape, bench rest, and shape a tight boule into a rice-floured banneton
9. Cold retard overnight, then score the cold loaf with one decisive slash and bake covered in a preheated Dutch oven
10. Uncover to finish to deep brown and the right internal temperature, cool fully, then read the crumb and plan one improvement











