THE SOURDOUGH FRAMEWORK

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TL;DR

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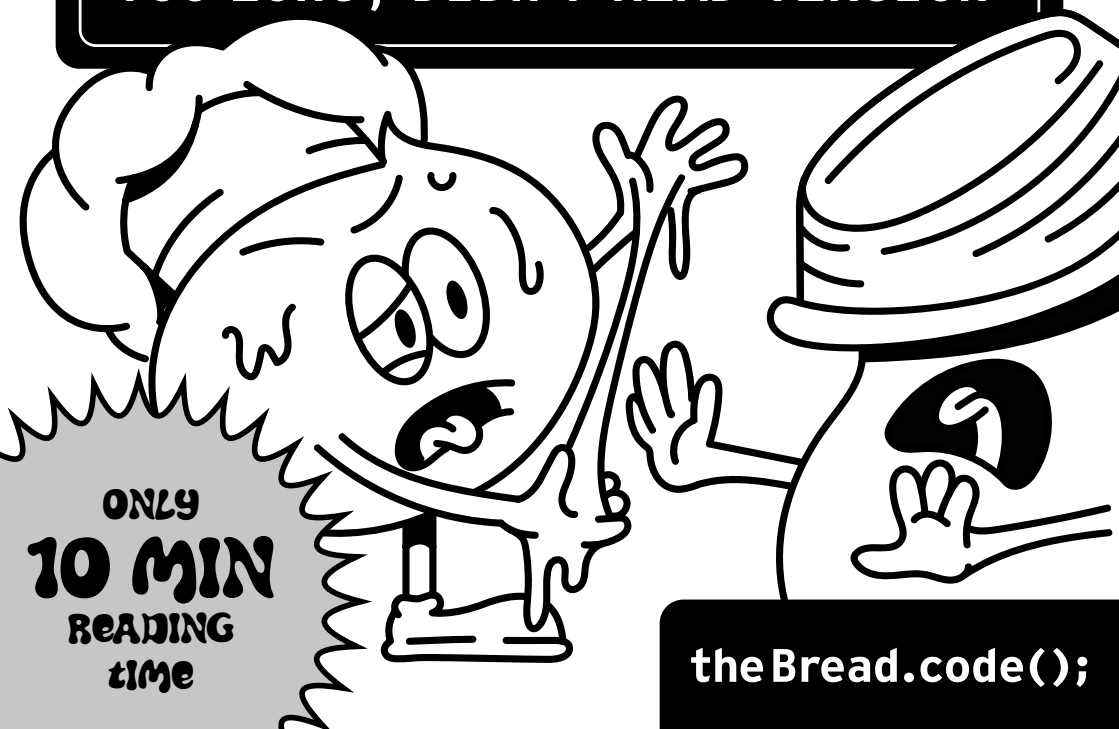

ONLY 10 MIN READING time

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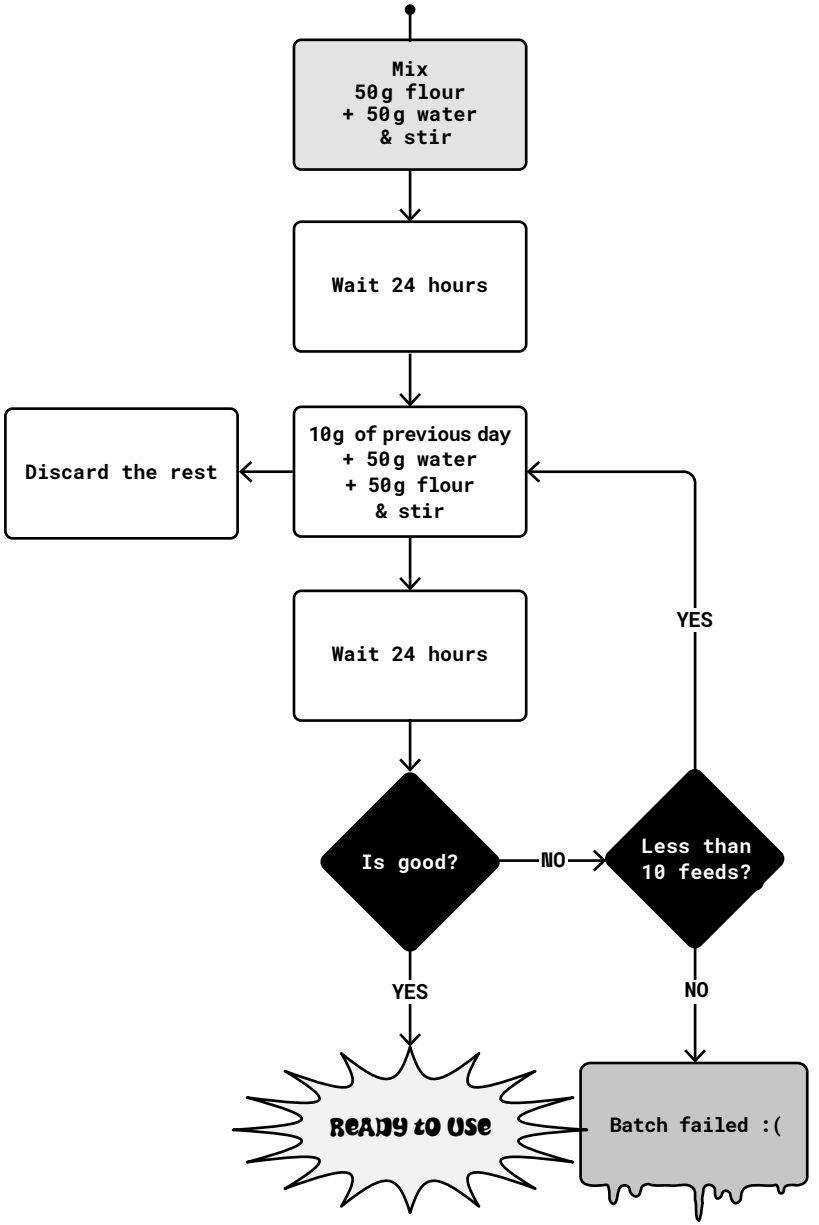
CONTENTS

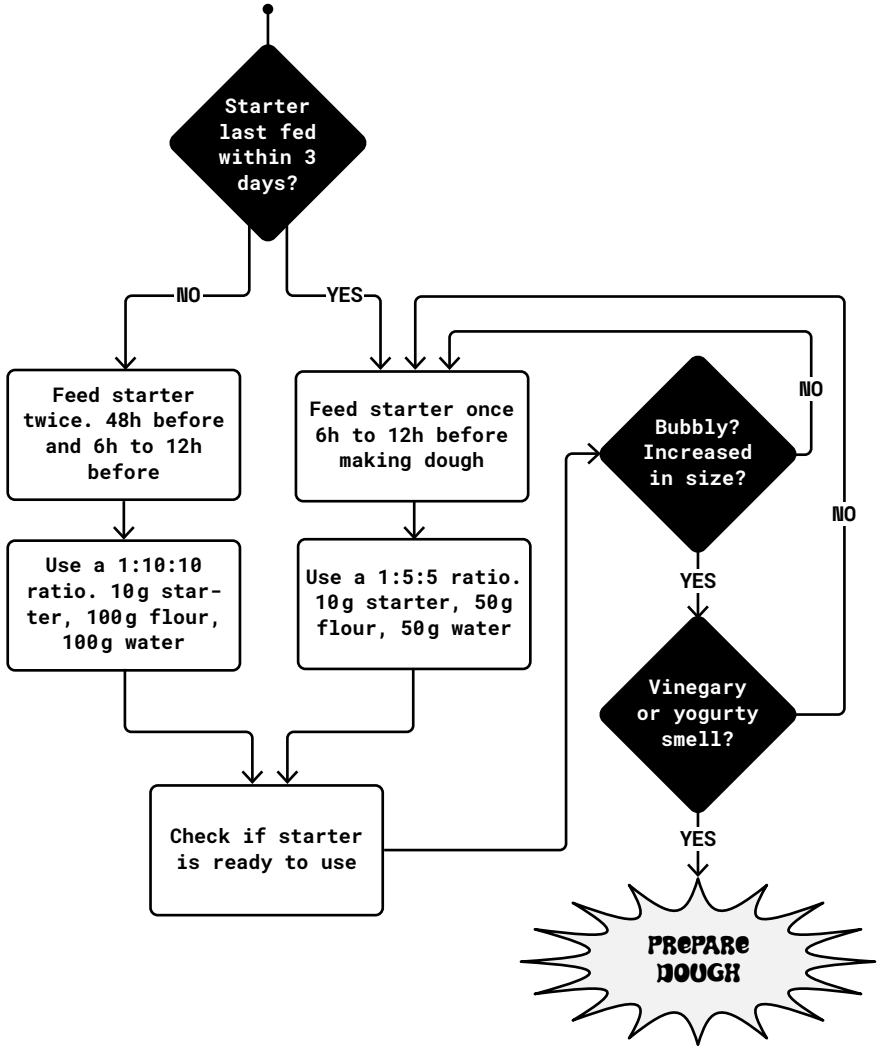
1. THE STARTER

1.1 Making a starter



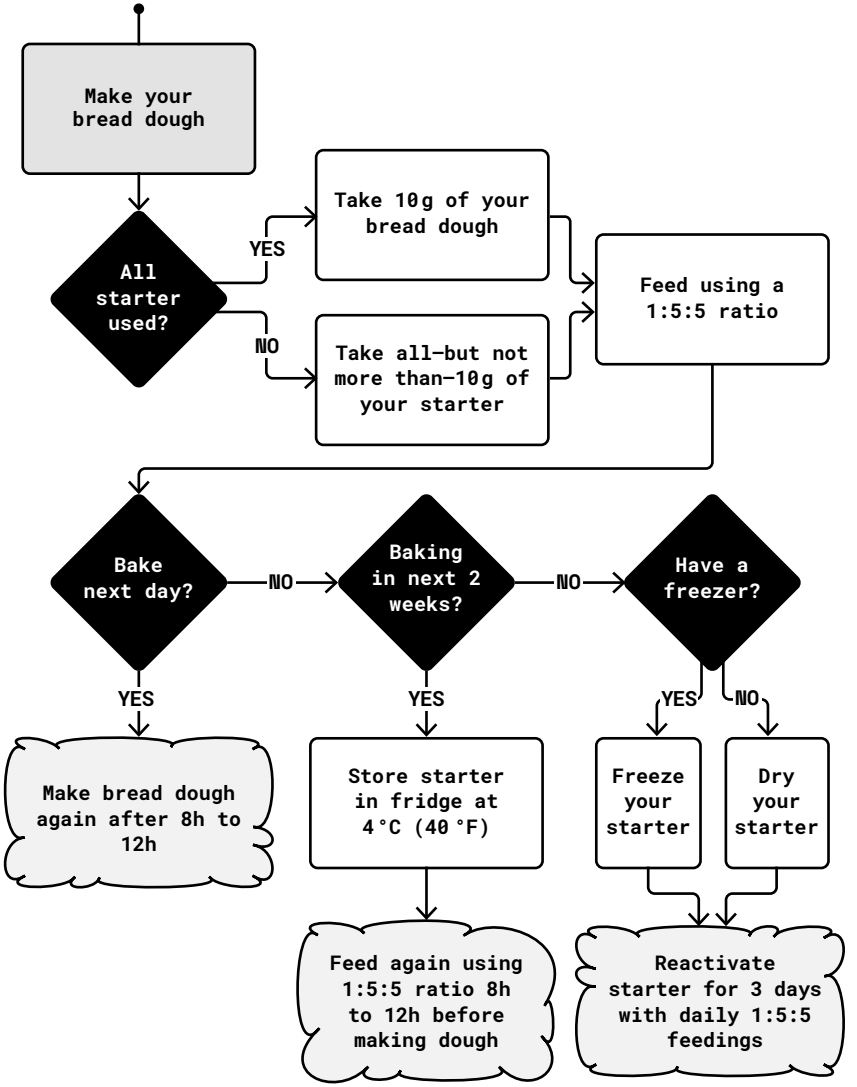
The process of making a sourdough starter from scratch.

1.2 Readying your starter



The process to check your sourdough starter when making wheat-based doughs. In practice, I frequently use a stiff sourdough starter. The stiff starter features enhanced yeast activity. In that case, you can use the same ratios as shown in the chart, except for the water quantity. The stiff starter has a hydration of 50% to 60%. So you would have half the shown water quantities, e.g., if the chart shows 100g of water, use 50g to 60g of water for your stiff starter.

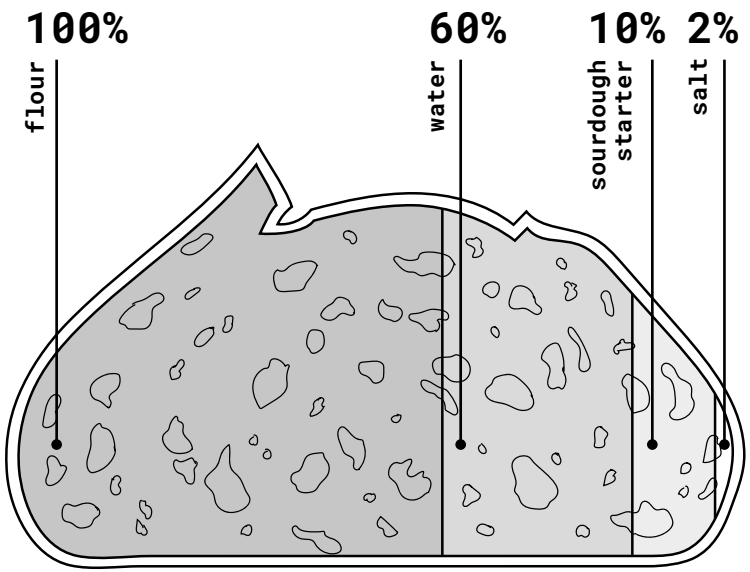
1.3 Maintaining a starter



A full flowchart showing you how to conduct proper sourdough starter maintenance. You can use a piece of your dough as the next starter. You can also use left-over starter and feed it again. Choose an option that works best for your own schedule. The chart assumes that you are using a starter at a 100% hydration level. Adjust the water content accordingly when you use a stiff starter.

2. THE DOUGH

2.1 Baker‘s Math

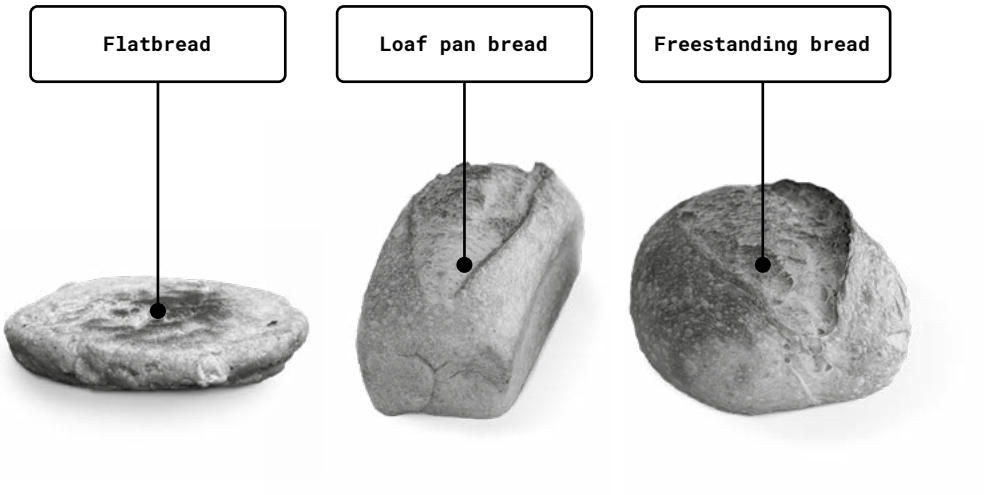


A sourdough bread consist of flour, water, sourdough starter and salt. You can make a great loaf with 60% water, 10% starter and 2% salt. Use the same ratio to make an amazing pizza dough.

INGREDIENT	PERCENT	CALCULATION
1000g flour	100%	1000g of 1000g = 100%
600g water	60%	600g of 1000g = 60%
100g sourdough starter	10%	100g of 1000g = 10%
20g salt	2%	20g of 1000g = 2%

An example table demonstrating how to properly calculate using baker’s math.

2.2 Bread types



	FLATBREAD	LOAF PAN BREAD	FREESTANDING BREAD
Cooking method	Fire, pan, barbecue	Oven	Oven
Working time (min.)	3	5	60
Flour types	All	All	Gluten flours
Difficulty	Very Easy	Easy	Difficult
Cost	Low	Medium	High

An overview of different bread types and their respective complexity.

2.3 Flatbread (wheat and non-wheat bread)

INGREDIENTS

400 g	(100%)	Flour (wheat, rye, corn, whatever you have at hand)
320 g	(80%)	Water, preferably at room temperature
80 g	(20%)	Active sourdough starter
8 g	(2%)	Salt

INSTRUCTIONS

01 Prepare the dough
In a large mixing bowl, combine the flour and water. Mix until you have a shaggy dough with no dry spots.
Add the sourdough starter and salt to the mixture. Incorporate them thoroughly until you achieve a smooth and homogenized dough.

02 Fermentation
Cover the bowl with a lid or plastic wrap. Allow the dough to rest and ferment until it has increased by at least 50% in size. Depending on the temperature and activity of your starter, this can take anywhere from 4 to 24 hours.

03 Cooking preparation
Once the dough has risen, heat a pan over medium heat. Lightly oil the pan, making sure to wipe away any excess oil with a paper towel.

04 Shaping and cooking
With a ladle or your hands, scoop out a portion of the dough and place it onto the hot pan, spreading it gently like a pancake.
Cover the pan with a lid. This traps the steam and ensures even cooking from the top, allowing for easier flipping later.
After about five minutes, or when the bottom of the flatbread has a golden-brown crust, carefully flip it using a spatula.

05 Adjusting cook time
If the flatbread appears too dark, remember to reduce the cooking time slightly for the next one. Conversely, if it's too pale, allow it to cook a bit longer before flipping.
Cook the flipped side for an additional five minutes or until it's also golden brown.

06 Storing
Once cooked, remove the flatbread from the pan and place it on a kitchen towel. Wrapping the breads in the towel will help retain their softness and prevent them from becoming overly crisp. Repeat the cooking process for the remaining dough.

07 Serving suggestion
Enjoy your sourdough flatbreads warm, paired with your favorite dips, spreads, or as a side to any meal.

2.4 Loaf pan bread (wheat and non-wheat bread)

INGREDIENTS

400 g	(100%)	Flour (wheat, rye, corn, whatever you have at hand)
320 g	(80%)	Water, preferably at room temperature
80 g	(20%)	Active sourdough starter
8 g	(2%)	Salt

INSTRUCTIONS

01 Prepare the dough
Mix the ingredients of your dough (gluten-free works too).

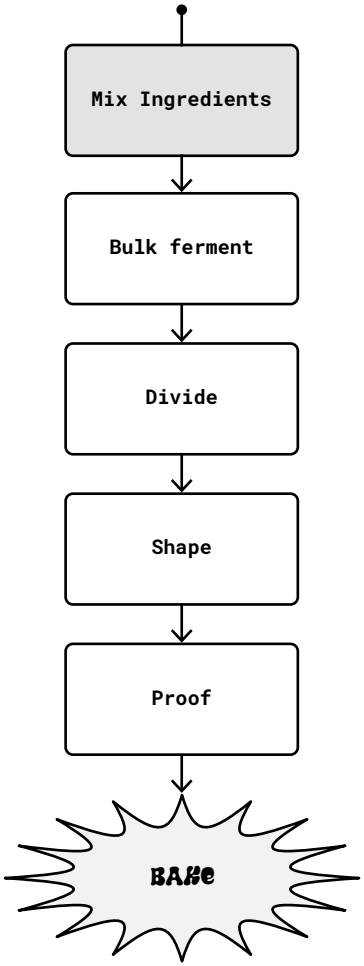
02 Fermentation
Place into the loaf pan. Wait until your dough has roughly doubled in size.

03 Baking
Bake in a non-preheated oven for around 30–50 minutes. Use a thermometer to measure the core temperature. The bread is done when the temperature reaches 92°C (200°F). Optionally bake longer to darken the crust based on your preference.

04 Waiting
Wait at least 60 minutes before trying to remove the dough from the loaf pan.

05 Storing
Keep the bread at room temperature in a dry place. With the high hydration the bread will stay good for days.

06 Serving suggestion
Enjoy while still warm.



A visualization of the process to make non-wheat sourdough bread. The process is much simpler than making wheat sourdough bread. There is no gluten development. The ingredients are simply mixed together.

2.5 Free standing bread

Freestanding wheat bread is the pinnacle of bread-making. The resulting loaf has a crisp crust, a fluffy interior, and a slightly tangy taste. It's more challenging because you need to develop the dough's gluten and time the fermentation perfectly.

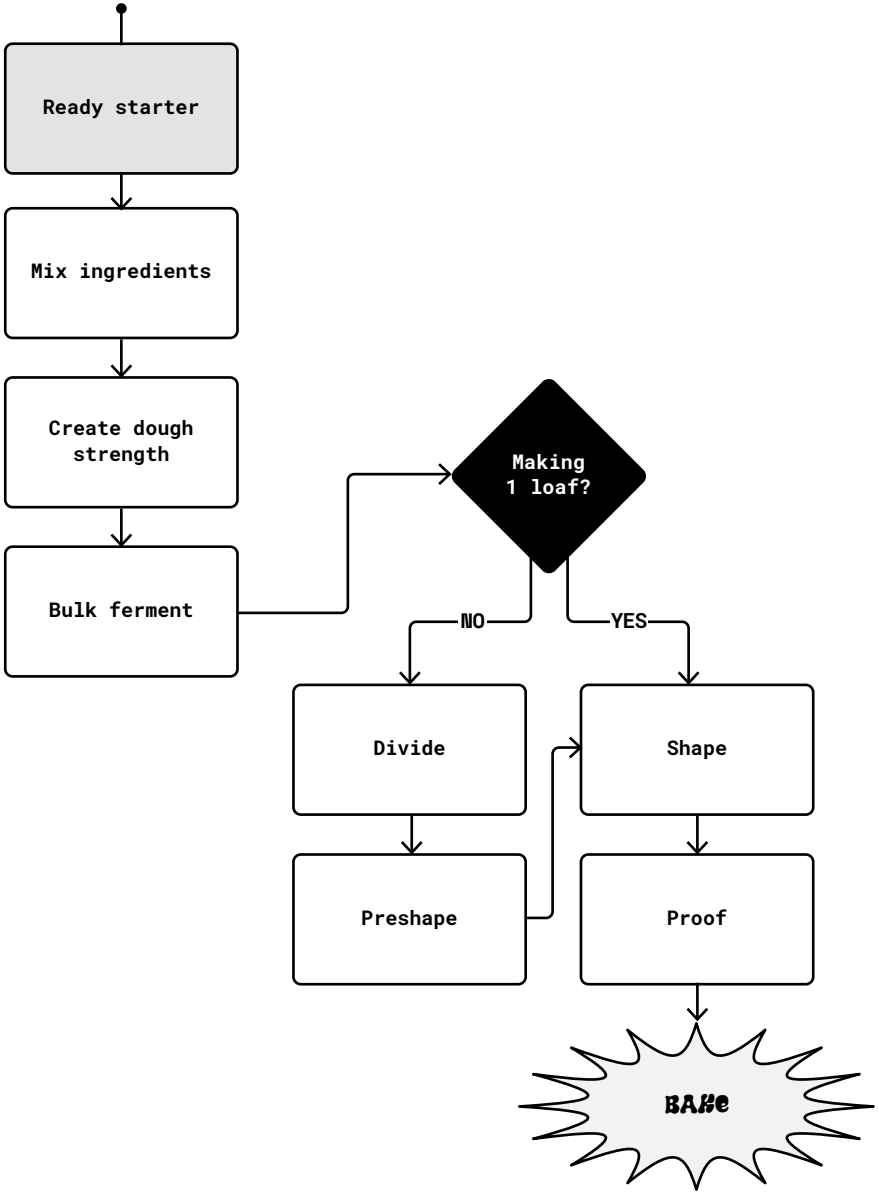
INGREDIENTS

400g	(100%)	Flour (wheat bread flour)
240g	(60%)	Water, preferably at room temperature
40g	(10%)	Active sourdough starter
8g	(2%)	Salt

FLOUR	WATER	STARTER	SALT
100%	60%	10%	2%
1000g	600g	100g	20g
800g	480g	80g	16g
750g	450g	75g	15g
600g	360g	60g	12g
500g	300g	50g	10g
400g	240g	40g	8g

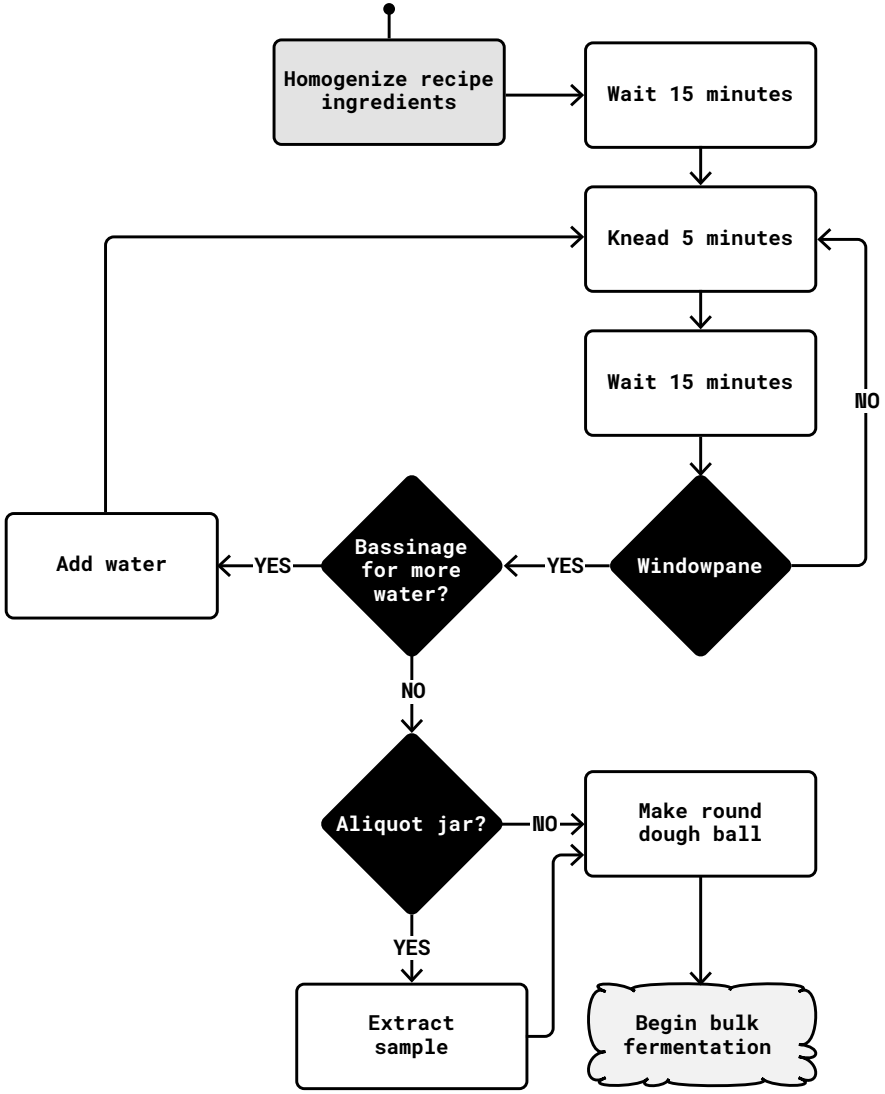
Some space for your own calculations

2.6 The process of making a free standing bread



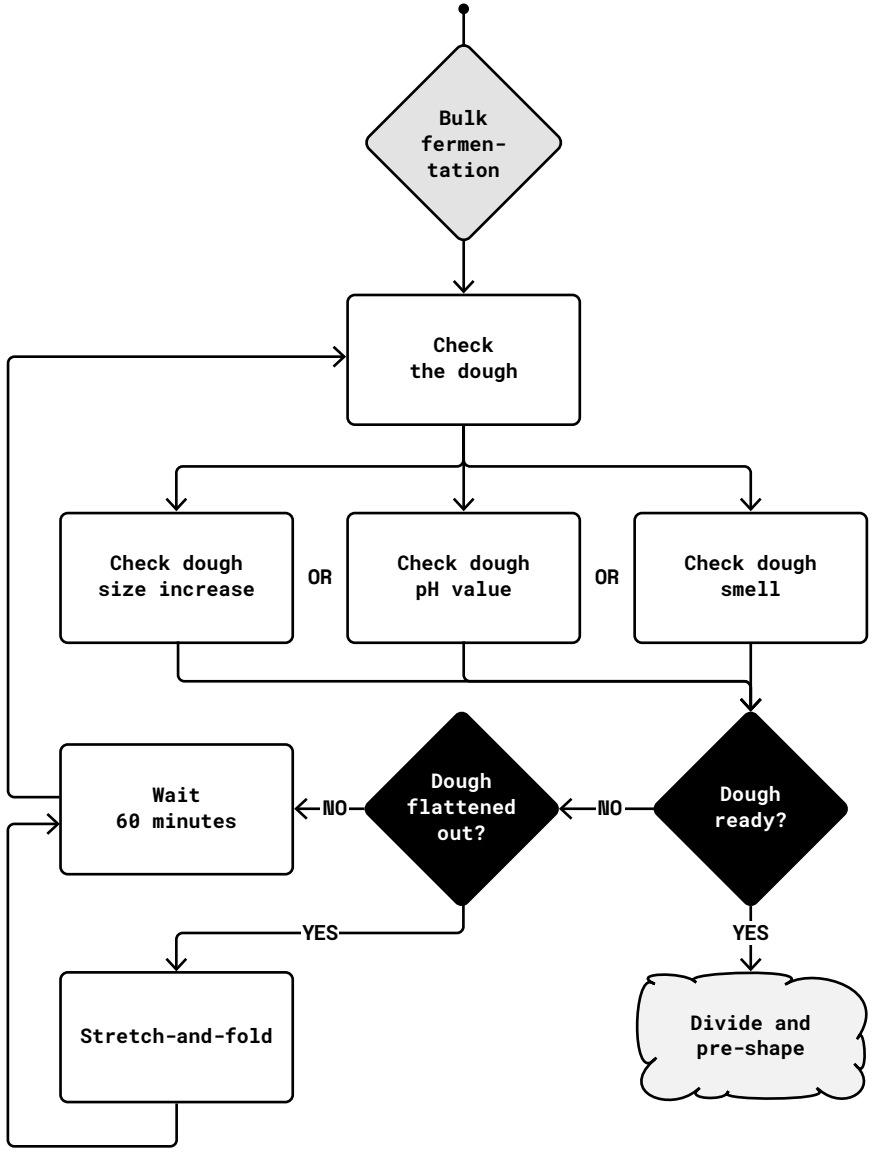
The typical process of making a wheat-based sourdough bread.

2.7 Dough strength



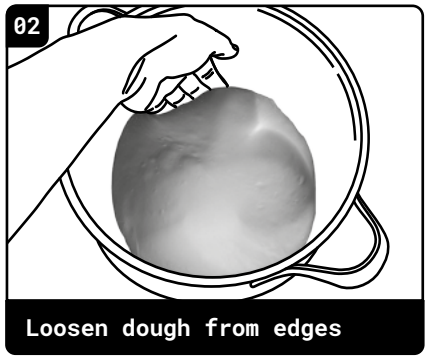
The gluten development process for a wheat-based dough.

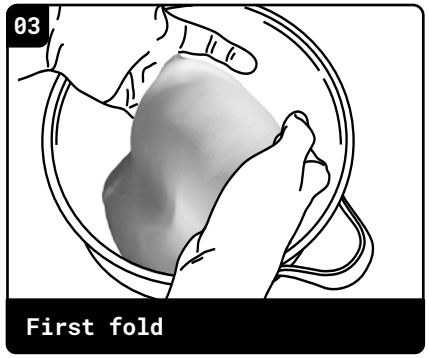
2.8 Bulk fermentation

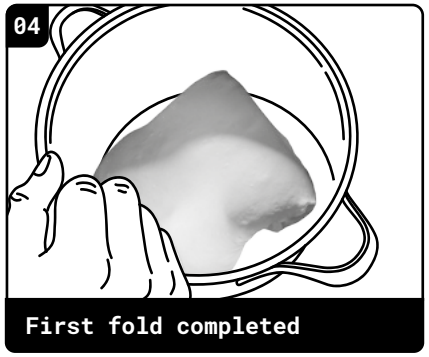


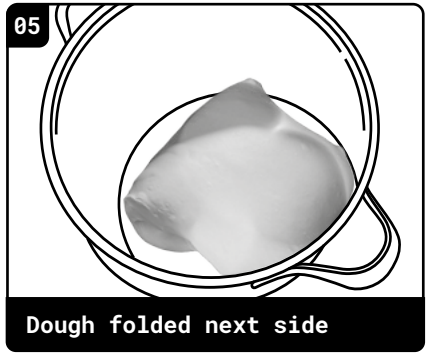
During the bulk fermentation, multiple doughs are fermented together in bulk. A challenging aspect of homemade sourdough bread is to determine when this stage of fermentation is completed. This chart shows multiple available options to check on the bulk fermentation progress.

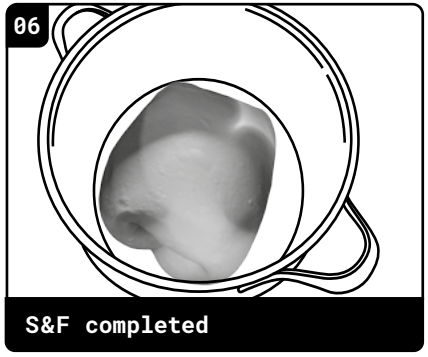
2.9 Stretch-and-folds





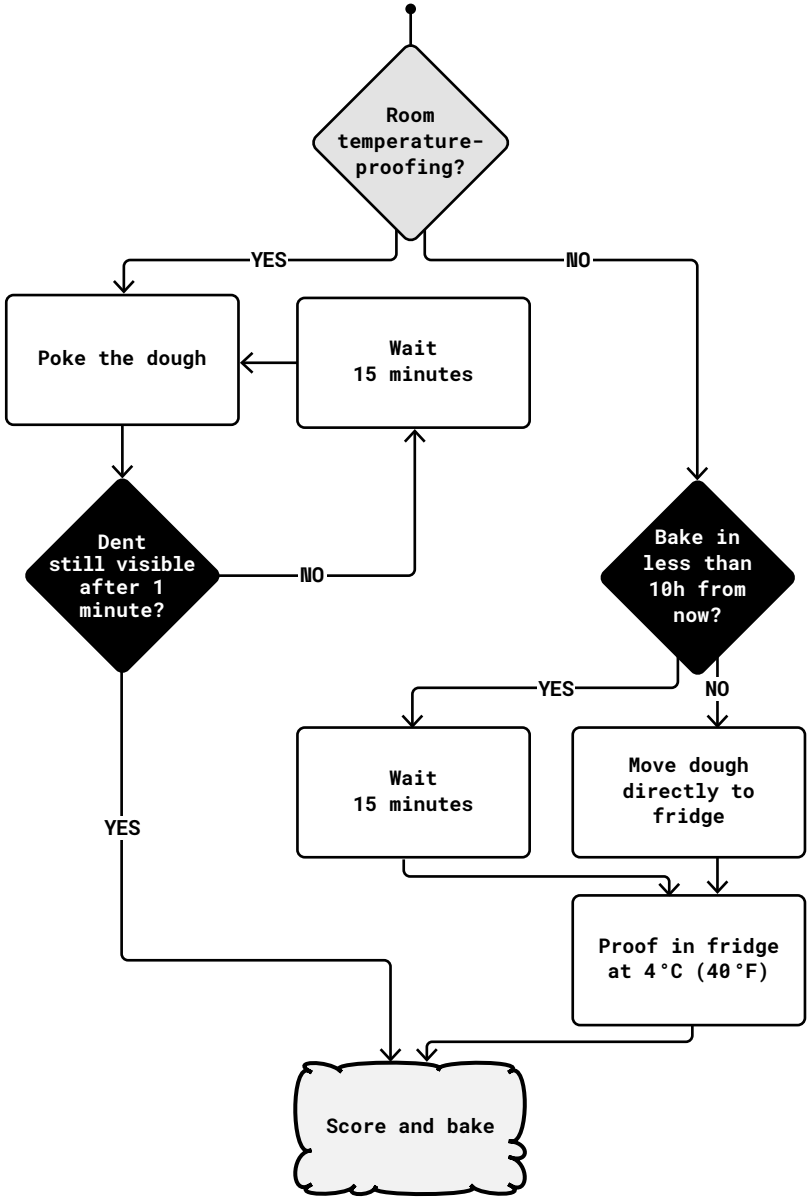






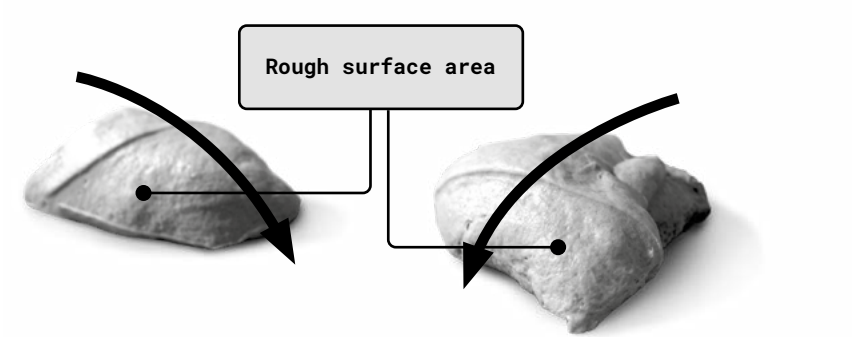
An overview of the steps involved to perform stretch-and-folds for wheat-based doughs.

2.10 Proofing



A schematic overview of the different steps of the sourdough proofing process. The proofing technique to choose depends on your availability and schedule.

2.11 First steps of shaping



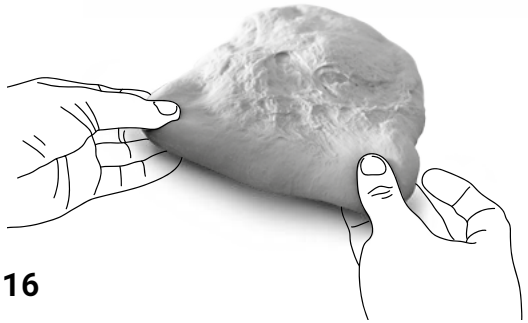
Preshaping: Drag the dough in the direction of the rough surface area. This way you minimize the movements required to complete the step.

01

A dough that has flour applied to its surface. This is the first step of the shaping process.

02

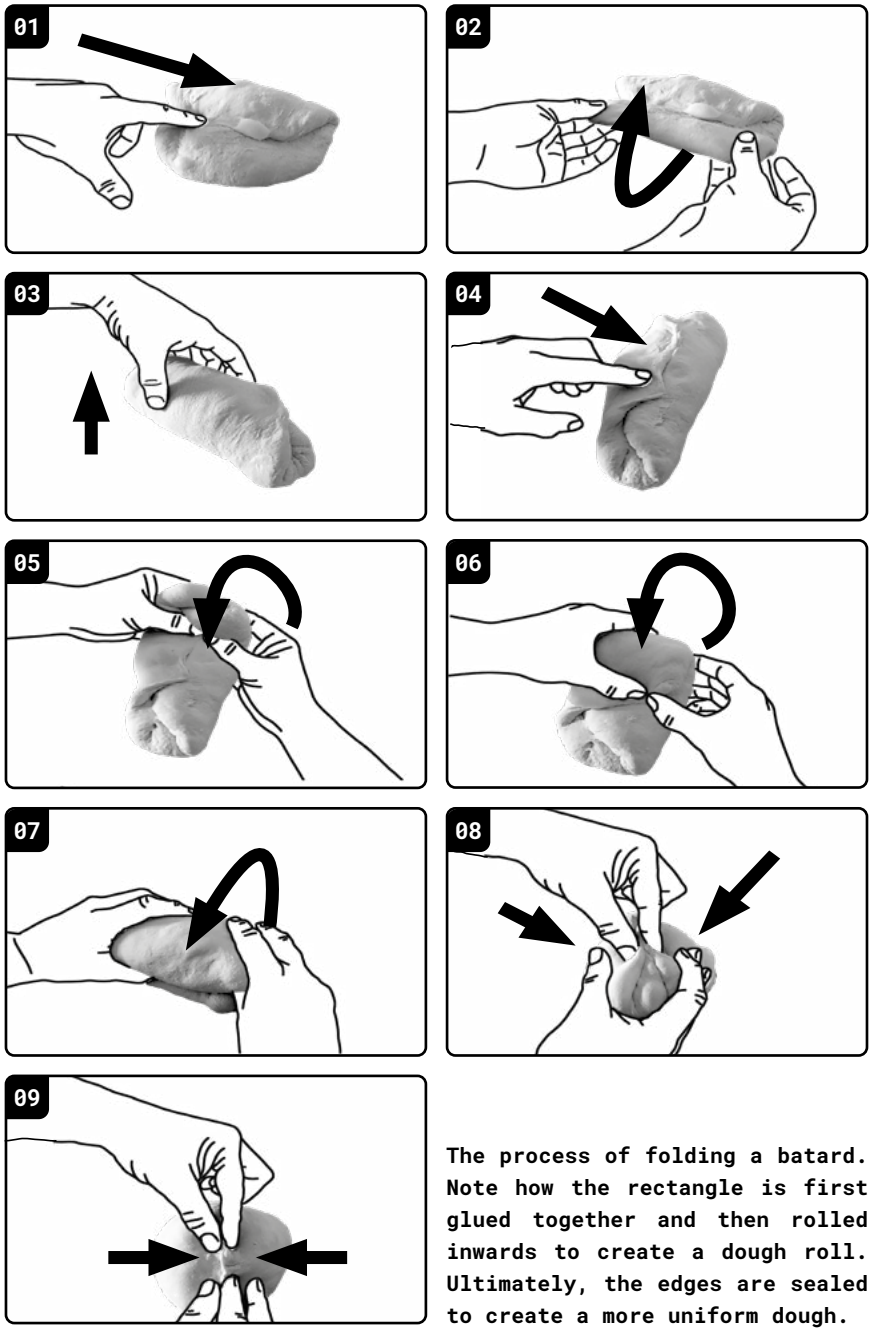
A flipped-over dough. Note how the sticky side is facing you while the floured side is facing the countertop. The sticky side is used as glue to hold the dough together.



03

Make the dough rectangular, keep the sticky side facing you while the floured side is facing the countertop.

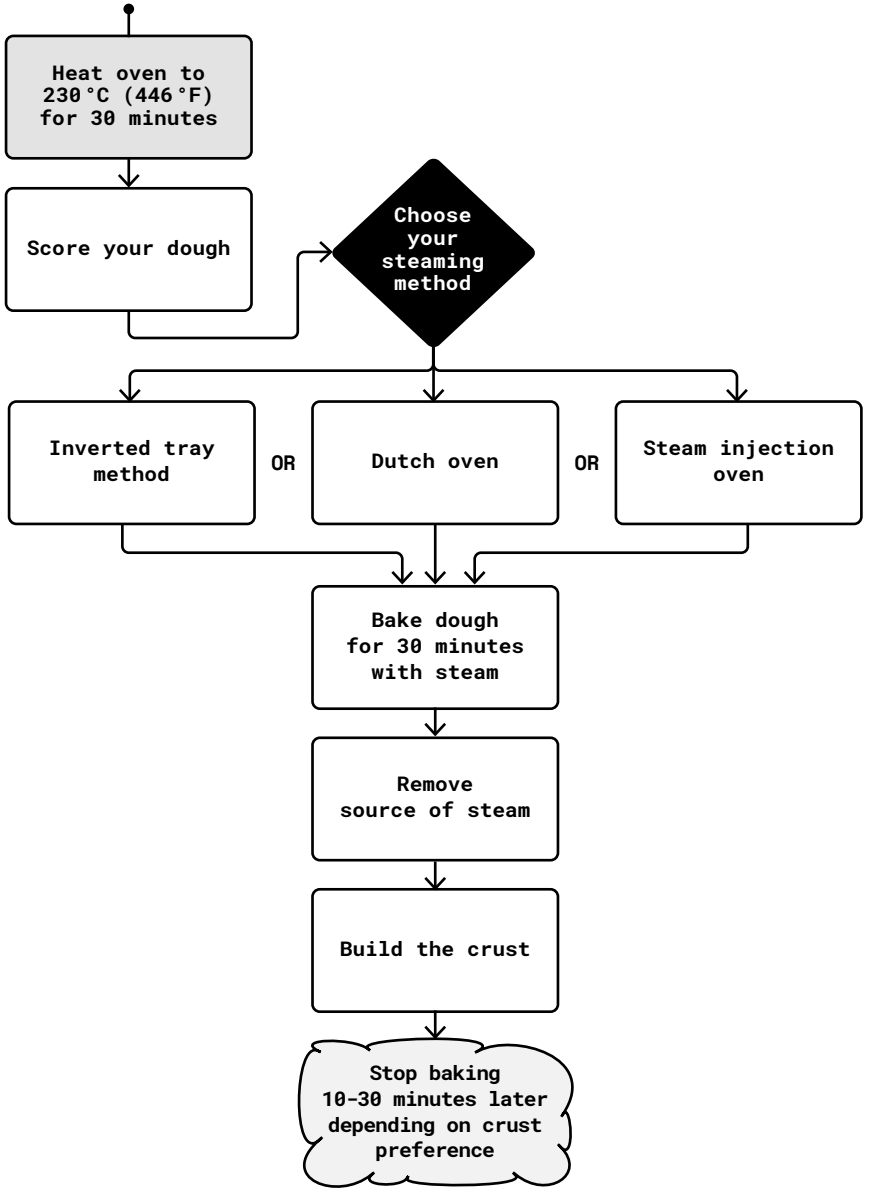
2.12 Folding a batard



The process of folding a batard. Note how the rectangle is first glued together and then rolled inwards to create a dough roll. Ultimately, the edges are sealed to create a more uniform dough.

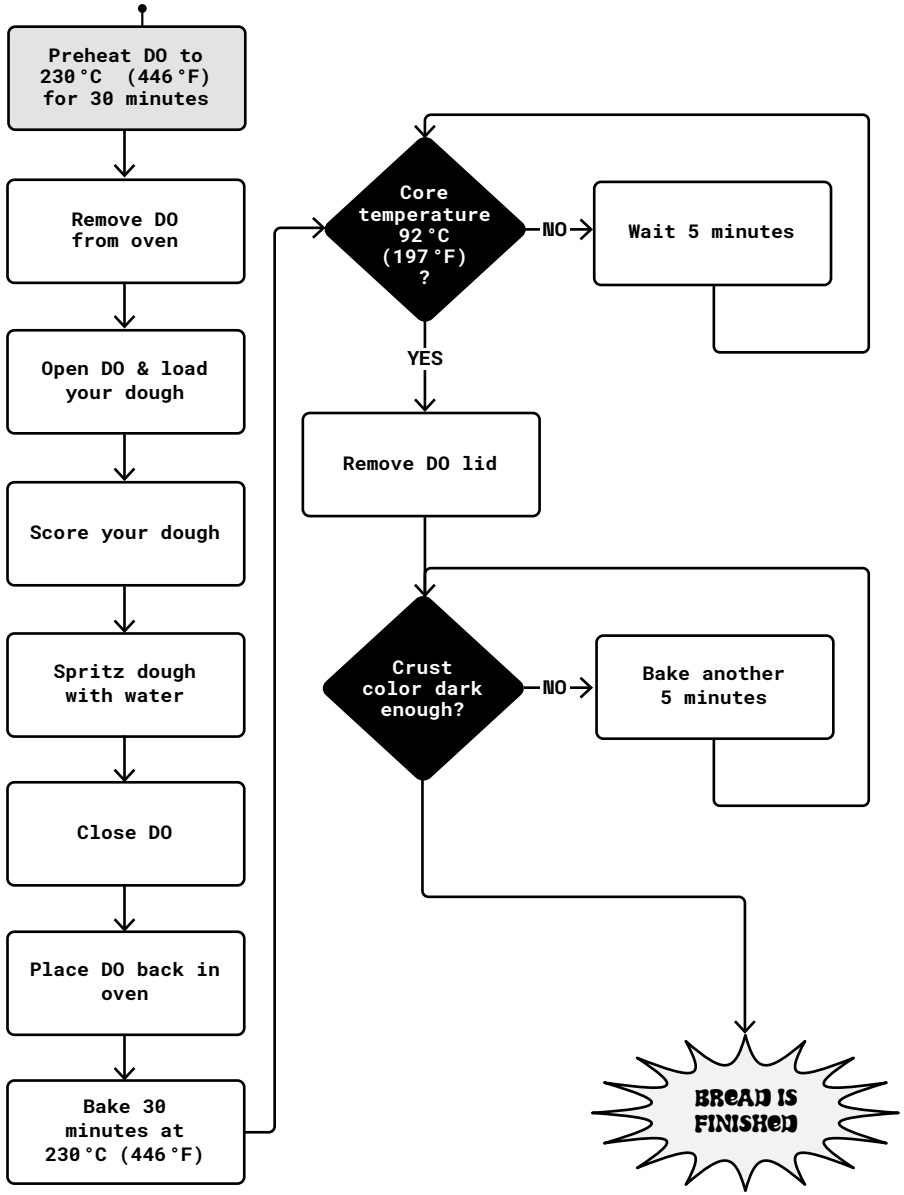
3. THE BAKING

3.1 The baking process



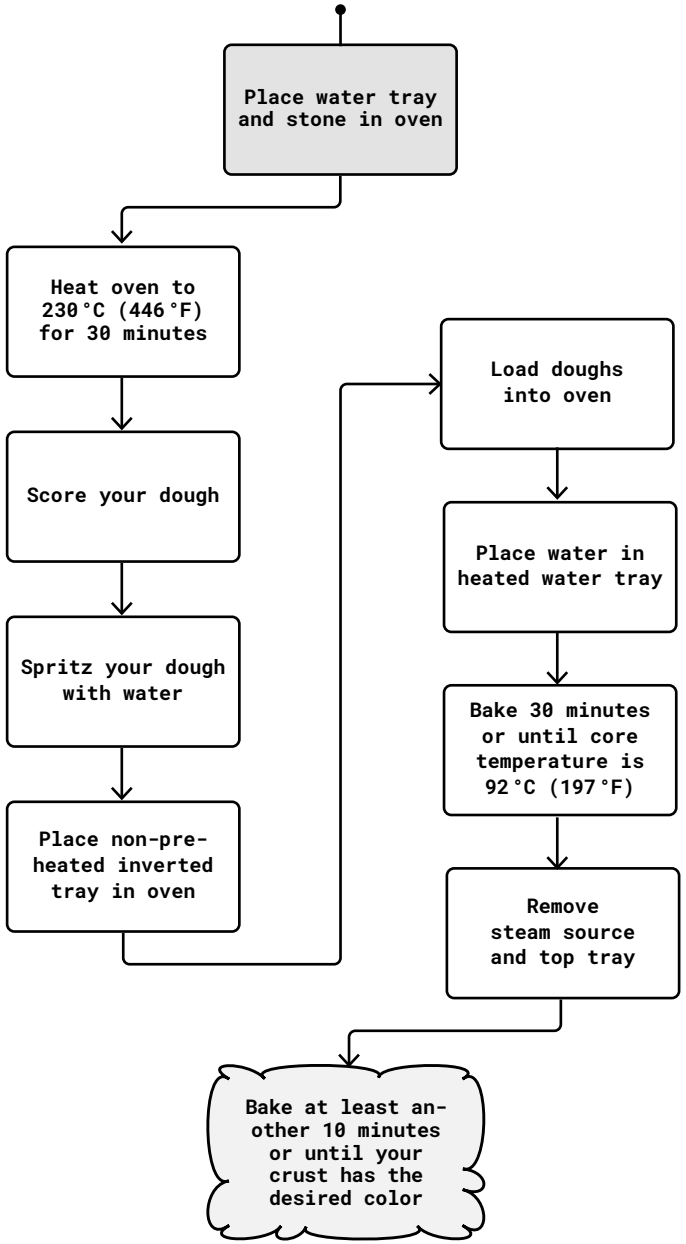
A schematic visualization of the baking process using different sources of steam in a home oven.

3.2 Baking with a dutch oven



A visualization of the baking process using a dutch oven (DO). The dough is steamed for the first half of the bake and then baked without cover for the second half of the bake. The desired darkness and thickness of the crust depends on your personal preference. Some bakers prefer a lighter crust and others a darker.

3.3 Inverted tray method



A schematic visualization the inverted tray baking method that works great for home ovens.

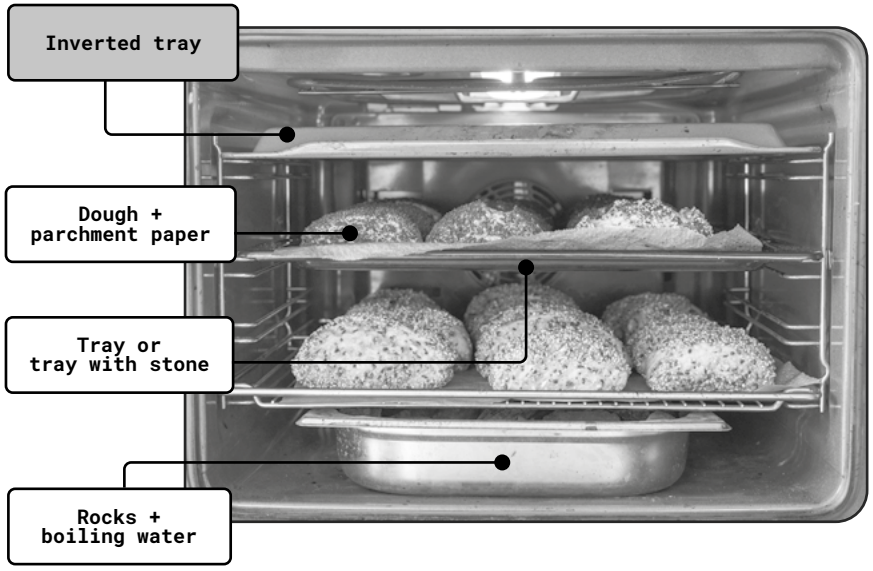
3.4 Inverted tray method setup

The inverted tray method simulates a Dutch oven. By placing another tray on top of your dough, the steam created from the dough and water source stays around your dough.

The biggest advantage of this method compared to the Dutch oven is scalability. You can bake multiple loaves at the same time. In my case that is around 2 freestanding loaves and 4 loaves in a loaf pan.

For the inverted tray you will need the following tools:

- **2 trays**
- **1 heat resistant bowl**
- **Boiling water**
- **Oven gloves**
- **(Optional) Parchment paper**



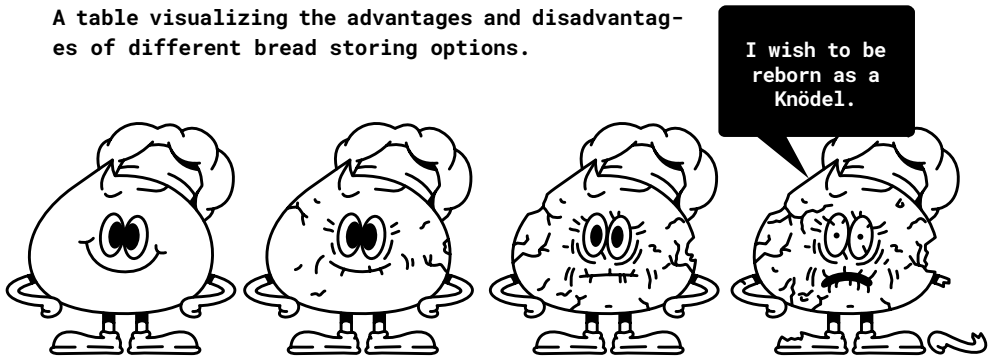
My home oven with the inverted tray method.

4. THE OTHER STUFF

4.1 Storing bread

METHOD	ADVANTAGES	DISADVANTAGES
Room temperature	The easiest option. Best for bread that is eaten within a day. Crust typically stays crisp when humidity not too high.	Bread dries out very quickly.
Room temperature in airtight container	Good for up to a week.	Bread needs to be toasted for crust to become crisp again. Catches mold more quickly.
Fridge	Bread stays good for weeks. Can dry out a little bit when not using air-tight container.	Bread needs to be toasted. Requires fridge and energy.
Freezer	Bread stays good for years.	Requires thawing and then toasting. Requires freezer and energy.

A table visualizing the advantages and disadvantages of different bread storing options.



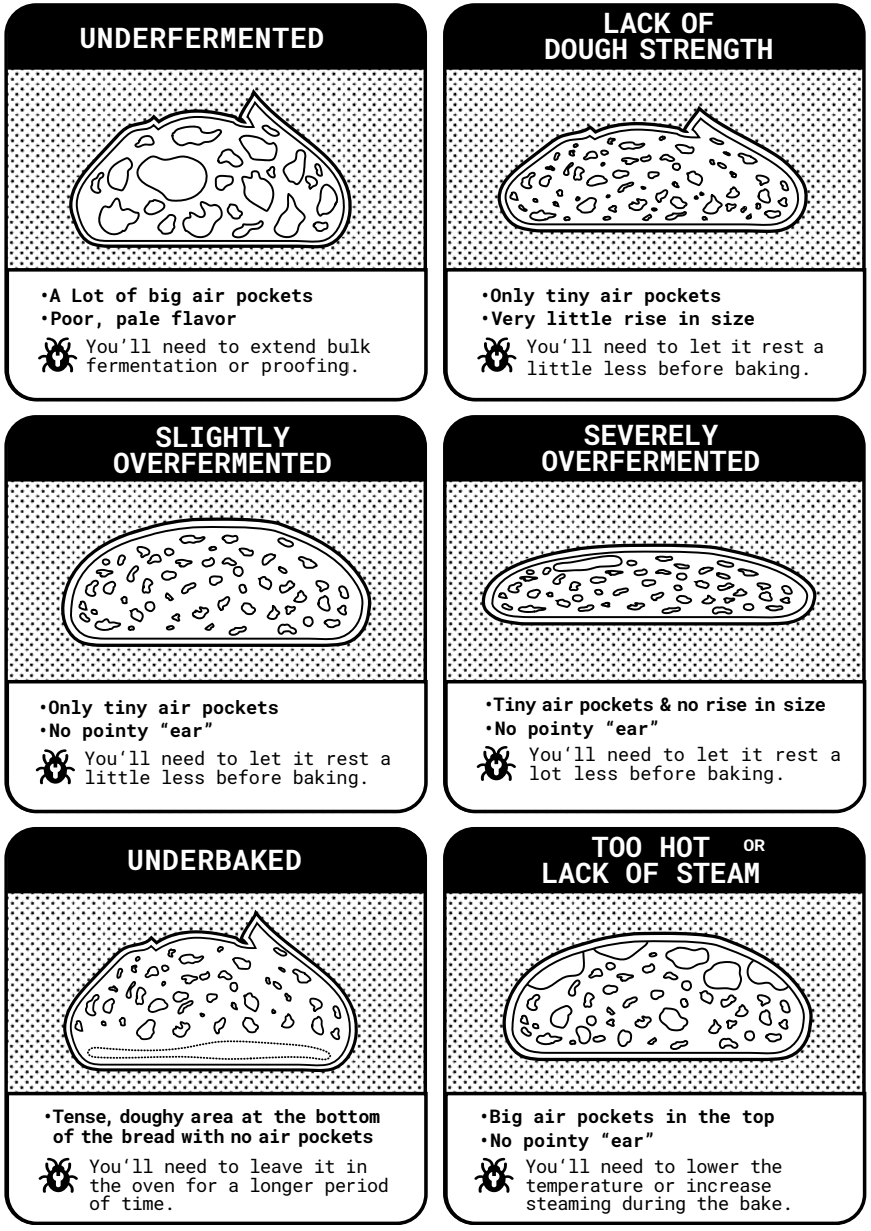
Day 1
Soft and delicious.

Day 2
A little drier but still delicious.

Day 3
Very dry. Edible but not great.

Day 4
Too dry to eat.

4.2 Debugging crumb structure



A schematic visualization of different crumb structures and their respective causes. The final bread's crumb is a key aspect to identify potential issues related to fermentation or baking technique.

5. YOUR NOTES

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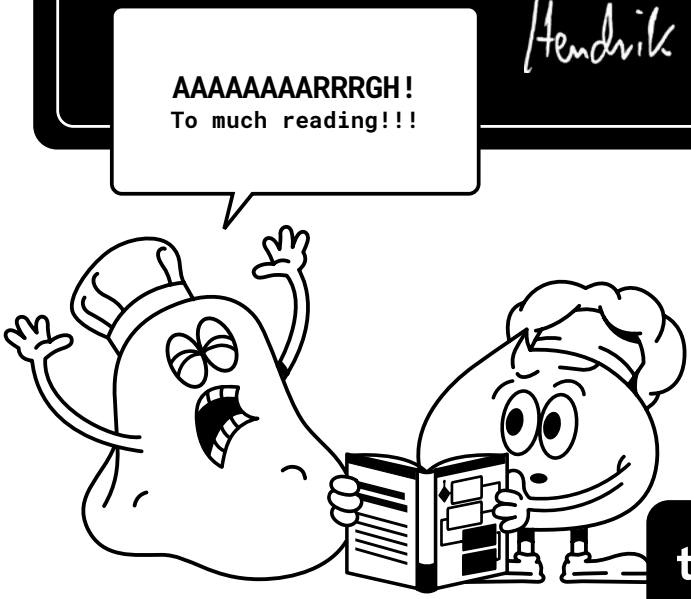
You don't need to know everything about bread to bake a great one.

As someone who has delved deeply into the art and science of sourdough baking, I wanted to make the process accessible to everyone—not just those who want to immerse themselves in every detail, but also those who simply want to bake a great loaf of bread without exhaustive study.

Focusing solely on actionable insights, this edition is packed with flowcharts, step-by-step instructions, and visually engaging information. Whether you're a novice baker or an experienced enthusiast, 'The Sourdough Framework (TL;DR Edition)' provides a clear, concise roadmap to mastering the art of sourdough.

Remember, every homemade bread is a win, even if it doesn't turn out perfect. Each loaf you bake is a step towards mastering the craft, and the joy is in the journey. Happy baking!

Hendrik



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