Bread 101

Below you'll find a list of ingredients and equipment needed for your class. To ensure efficiency during class, please have all ingredients on hand before class begins. Any prep work to be done before class is highlighted in yellow.

All recipes used in class will be attached in your confirmation email. Please scroll past the equipment list for the recipes.

If you have any questions or concerns email us, bakingeducation@kingarthurbaking.com. All Zoom links are sent out on the day of class. If you have not received the link 1 hour before your class begins, please contact us at the email above.

INGREDIENTS *(total amount needed for the class)*

- ☐ *Unbleached All-Purpose Flour: 720g (6 cups), plus more for dusting work surface*
- ☐ *Sugar: 12g (1 tablespoon)*
- ☐ *Instant or active dry yeast: 7g (2 ¼ teaspoons)*
- ☐ *Salt: 14g (2 1/2 teaspoons)*
- ☐ *Unsalted butter: 28g (2 tablespoons), at room temperature*
- ☐ *Milk: 228g (1 cup)*
- ☐ *Water: 297g (1 ¼ cup)*

EQUIPMENT

- ☐ *Scale (preferred) or measuring cup set*
- ☐ *Measuring spoons*
- ☐ *Liquid measuring cup*
- ☐ *Mixing bowl: 1 large*
- ☐ *Bowl scraper*
- ☐ *Bench knife*
- ☐ *8 ½" x 4 ½" loaf pan*
- ☐ *Baking sheet with parchment paper or silicone baking mat*
- ☐ *Non-stick spray (or butter/oil for greasing pans)*

Basic Bread

YIELD: 2 LOAVES

INGREDIENTS

- ☐ *720g (6 cups) King Arthur Unbleached All-Purpose Flour*
- ☐ *12g (1 tablespoon) sugar*
- ☐ *7g (2 ¼ teaspoons) yeast*
- ☐ *14g (2 ½ teaspoons) salt*
- ☐ *28g (2 tablespoons) unsalted butter, at room temperature*
- ☐ *228g (scant cup) whole milk*
- ☐ *297g (1 ¼ cups) water*

DIRECTIONS

1. Combine the flour, sugar, yeast, and salt in a large bowl. Cut the butter into small pieces, then stir it into the dry ingredients.
2. Pour the milk and water into the flour mixture. Stir to blend into a cohesive, shaggy mass.
3. Turn the dough out onto a lightly floured surface.
4. Knead the dough by folding the far edge of the dough in half toward you. Press the dough with the palms of your hands and push lightly, down and away. Rotate the dough 90°.
5. Continue this process (fold, push, turn) until the dough is smooth and springy, about 5 minutes. Handle the dough very gently at first, then as the dough increases in strength, increase the pressure. If the dough sticks, scrape your work surface clean with your bench knife, and sprinkle the kneading surface lightly with flour.
6. Allow the dough to rise in a covered bowl until it has doubled in bulk, about 1 hour.
7. After the dough has risen, turn it out onto a lightly floured surface and pat it down gently to degas it. Divide the dough in half, then shape as desired.
8. Cover the loaves with plastic wrap and allow to rise until puffy and not quite doubled in volume, about 45 to 90 minutes depending on the room temperature.
9. Bake the loaves in a preheated 375°F oven for 30 to 36 minutes, or until the crust is golden brown and the loaf sounds hollow when tapped. Be sure to check the bottom of the loaf, too.
10. Cool completely before wrapping in plastic. Can be stored at room temperature. Freeze for longer storage.

Yeast Bread Ingredients

BASICS

FLOUR

The most common flours used in modern baking are made from ground wheat. When bakers talk about the protein content of flours they often mean the gluten-forming proteins, not the nutritional value. Gluten helps form the structure of all baked goods but is particularly important when it comes to bread. Other factors, such as flavor, texture, and health benefits, can also play a role in choosing the right flour for a recipe, whether that's a wheat flour or a flour made from other grains, nuts, or seeds.

YEAST

Baker's yeast is a living organism that will promote fermentation if it has food and water. Fermentation is the conversion of sugars into carbon dioxide, organic acids, and alcohol. Carbon dioxide is the gas that makes bread rise, while the organic acids and alcohols give bread its distinctive flavor. Most of the sugar that yeast will consume during the fermentation process comes from the carbohydrates in our flour, so not all bread recipes will call for other sugar to be added. Either Instant or Active Dry yeast may be added directly to dry ingredients. A 1/4-ounce packet of yeast measures 2 1/4 teaspoons and weighs 7 grams.

WATER

Water has several functions in bread dough. When wheat flour is hydrated, gluten forms and creates structure for baked goods. Water also dissolves and disperses salt, sugar, and yeast. A moist environment allows yeast to ferment and reproduce, and doughs that are too dry will be denser and lower rising. Water temperature is also an important factor in fermentation. Yeast generally prefers warm water, and warmer water will lead to faster fermentation times, but water temperatures above 120° will begin to kill yeast. Cold water will not harm yeast, but it will slow it down and extend fermentation time. If your water is safe to drink and cook with, it will be just fine to bake bread with.

SALT

Salt provides flavor and tightens gluten structure, which leads to improved strength and texture in bread dough. Salt is also hygroscopic, which means it attracts water to itself, so adding salt to bread dough slows the activity of the yeast. This lengthens fermentation times, allowing the baker more time to work with the dough and more time for flavor to develop. Salt is salt, as far as bread is concerned, so any type of salt can be used. When measuring by weight, different types of salt can be substituted in equal amounts. When measuring by volume, a teaspoon of finely ground salt (like table salt), is a level teaspoon, and an equivalent teaspoon of coarsely ground salt (like kosher salt), is a heaping teaspoon.

ENRICHMENTS

SUGARS

Sugar and other sweeteners add flavor and tenderness to any bread. Adding sugar to bread doughs also leads to more color in a baked loaf, because when sugar caramelizes it darkens the color of the crust. Like salt, sugar attracts water to itself, and so in high quantities sugar will slow down the yeast fermentation in our bread. For that reason, bakers making high sugar bread recipes may opt for a different type of yeast, referred to as osmotolerant yeast.

MILKS

Dairy milk contributes flavor, promotes tenderness, and increases browning. Non-dairy milk can also provide these benefits, depending on the type. Dairy milk and non-dairy milk can be traded in equal amounts in most recipes, or an equal amount of water can be used in place of either.

BUTTER/OILS

The addition of liquid or solid fats adds a more tender texture to breads by inhibiting the development of gluten. Bread doughs with large amounts of fat added will usually require longer kneading and fermentation times.