

Objective

By the end of this lesson, the student will understand the basic principles of baking bread, including the science behind fermentation, the history of bread-making, and how to measure ingredients accurately. The student will also create a delicious loaf of bread to enjoy!

Materials and Prep

- All-purpose flour (about 4 cups)
- Water (1.5 cups, warm)
- Yeast (2.25 teaspoons, or 1 packet)
- Salt (1.5 teaspoons)
- Sugar (1 tablespoon)
- Mixing bowl
- Measuring cups and spoons
- Wooden spoon or spatula
- Clean kitchen towel
- Baking sheet or loaf pan
- Oven
- Timer

Before starting, ensure the oven is preheated to 375°F (190°C) and that all ingredients are at room temperature. Familiarize yourself with basic measuring techniques.

Activities

- **Science of Baking:** Discuss the role of yeast in the bread-making process. The student will learn how yeast ferments sugar and produces carbon dioxide, which helps the bread rise.
- **Measuring Ingredients:** The student will practice measuring flour, water, and other ingredients accurately. This will help them understand the importance of precision in baking.
- **Mixing and Kneading:** The student will mix the ingredients to form a dough and then knead it. This activity will teach them about gluten development and its importance in bread texture.
- **Baking and Observing:** While the bread bakes, the student will observe the changes in the dough and discuss how heat affects the ingredients. This is a great time to talk about the Maillard reaction and how it gives bread its color and flavor.
- **Tasting and Reflection:** After the bread is baked, the student will taste their creation and reflect on the process. They can write a short paragraph about what they learned and what they enjoyed the most.

Talking Points

- "Did you know that yeast is a living organism? It's like a tiny helper that makes our bread rise!"
- "Measuring ingredients accurately is super important in baking. Even a little too much flour can change how our bread turns out!"
- "When we knead the dough, we're helping to develop gluten. Gluten is what gives bread its

chewy texture!"

- "What do you think happens to the dough when we put it in the oven? That's right! The heat makes the yeast work faster and the dough rises even more!"
- "Can you smell that? That's the Maillard reaction happening! It gives our bread that delicious golden-brown crust."
- "Baking is a mix of science and art. You get to use your creativity to make something tasty!"
- "After all this hard work, how does it feel to taste something you made from scratch? It's pretty awesome, right?"