



Read & STEAM

Still There Was Bread



Lesson Summary

Students will learn about the components of bread through the book *Still There Was Bread* and a gluten extraction experiment

Grade Level

K-5

Length of Lesson

45 minutes

Materials

- Bowls for each student
- Flour (every student needs one cup)
- One cup measuring cup
- Half cup measuring cup
- Water
- Pitcher for the water

Reading Guide

1. Introduce the story using these questions (2 min)

- a. What is bread?
- b. Have you ever made bread before?
- c. Do you think it has always been made the same way?
- d. "Today we will read a story about a boy who learns to make bread!"

2. Read *Still There Was Bread*

by Lisl H. Detlefsen (10 min)

3. Reflect on the story with these questions (3 min)

- a. What was in the bread in the story?
- b. What were some of the steps they had to take to make the bread?
- c. What were some of the ways Grandma said making bread has changed over the years?
- d. "Today, we will do an experiment to learn about what makes bread rise!"

Vocabulary

Flour: a powder obtained by grinding grain, typically wheat, and used to make food such as bread, cakes, and pastry

Gluten: a substance present in cereal grains, especially wheat, that is responsible for the elastic texture of dough

Additional Lesson Links

- Matrix Lessons
 - [Food Master Grains](#)
 - [Enjoying the Harvest](#)
 - [Wheat Germ DNA](#)
- Other Resources
 - [Bread in a Bag Activity](#)
 - [Science: What is Gluten? Video](#)

Standards

NALO:

T3.K-2.b

T5.3-5.d

T5.3-5.f

Lesson adapted from “Extracting Gluten” found within the Illinois Agriculture Lessons and Curricular Materials, <https://www.agintheclassroom.org/wheat/posts/extracting-gluten/>

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Gluten Extraction Activity

1. Begin Gluten Extraction activity (25 min)

- Add 1 cup of flour into a bowl for each student
- Slowly add about 1/2 to 3/4 cup water to the flour in each bowl, and knead each mixture until it forms a soft, rubbery ball of dough
- Let the balls of dough sit for about 10 minutes
 - While the dough rests, explain what gluten is: “Gluten is a protein in the seed of the wheat plant that is used to make flour. It is very stretchy and chewy. What can you think of that is stretchy? When the yeast in the dough creates gas, the gluten traps it in the dough and helps it rise without falling apart. If you take the gluten out of bread, how do you think the bread would change?”
- Add a few inches of water to each bowl
- Knead the dough in the water. You’ll notice the water turning milky as it washes away the starch in the dough
- Keep pouring out the cloudy water that collects in the bottom of the bowl and add fresh water
- When the water no longer becomes milky, there is no more starch in the dough, leaving nearly pure gluten
- Have each student wash their hands

2. Review the activity with these questions (5 min)

- What ingredients are in bread?
- Which ingredient did we extract, or take out, in our dough?
- Final message: “People have been making bread for a very long time, and it usually includes flour, water, yeast, and other ingredients. When we eat bread, we can remember the long history of people who have made it before us.”