

Making Bread and Butter

(K to 12)

Overview

Elementary students will make bread and learn about where flour comes from. They will explore the role of yeast in bread-making and make butter by hand.

Estimated time: 2 hours

Food Costs: \$15-20

Learning Outcomes

By the end of the lesson, the students will

- understand where flour comes from
- be able to make bread
- understand the role of yeast in bread-making
- be able to make butter

Materials (for 4 groups)

For making bread

- 4 copies of the recipe, “Bread in a Bag”
- 4 regular-sized muffin tins (12’s)
- 4 250 mL dry measuring cups
- 4 250 mL wet measuring cups
- 4 sets of measuring spoons
- 4 large resealable plastic bags
- 4 twist ties
- 4 large tea towels
- napkins, for serving
- ingredients for making bread (amounts listed on recipe): all-purpose flour, whole wheat flour, granulated sugar, skim milk powder, active quick yeast*, water, salt, vegetable oil

*do not substitute with traditional yeast

Making Bread and Butter (K to 12)

For making butter:

- 4 250 mL glass jars with tight-fitting lids
- 250 mL liquid whipping cream, divided
- pinch of salt
- plastic knives, for spreading

For yeast experiment:

- 4 small bowls
- 4 spoonfuls yeast (any type), divided
- 4 spoonfuls granulated sugar, divided
- 500 mL warm water, divided

For discussion

- Samples of grains in different forms (e.g. wheat berries, wheat flakes, flour, oat groats, rolled oats, cheerios). Place each sample in a small container or resealable plastic bag for ease of use
- Books or pictures of wheat growing and of different varieties of bread

Procedure

1. Introduction

- Explain to students that they will be making bread today. Go through the key ingredients involved and review classification by asking them what food groups each ingredient falls into (flour is in Grain Products; skim milk powder is in Milk and Alternatives; sugar, salt and oil are foods to limit and we are using them in very small amounts).
- Introduce yeast as the secret ingredient in bread-making. Explain what yeast is and how it works (Yeast is a tiny organism, neither plant nor animal, but in a special category called fungi—the same group that mushrooms belong to. Yeast needs sugar and a warm environment to grow. You can tell it's growing when you see bubbles. The bubbles are a gas called carbon dioxide that makes bread rise.)
- Divide students into groups (no more than 4-6 students per group).

2. Conduct yeast experiment.

Making Bread and Butter

(K to 12)

- Place a spoonful of yeast in the small bowl. Add a spoonful of sugar and warm water and stir.
- Explain that sugar is food for the yeast and the warm water provides a warm environment for the yeast to activate and grow.
- Ask students to observe what happens inside the bowl as they proceed with bread-making.

3. Make Bread

- Follow the instructions on the recipe.
- Suggestions to help make session more manageable:
 - Bring ingredients one-by-one to each group. Get one student to help
 - Have students work cooperatively to take turns measuring ingredients, mixing/kneading the dough, and greasing the muffin tins.
 - Encourage students to observe the yeast growing inside the bowls.

4. While the bread rises and bakes in the oven, gather students into a big group for discussion.

- Ask students if they know where flour comes from.
- Show pictures of wheat and pass around examples of grains in different forms (wheat berries, wheat flakes, flour, oat groats, rolled oats, cheerios). Encourage students to see and touch the different grain examples.
- Discuss results of yeast experiment.

5. Make butter.

- Hand out 1 empty glass jar to each group.
- Pour whipping cream into jar (no more than 1/3 full).
- Ask students to take turns shaking vigorously until solids form (about 10-15 minutes).

6. Tasting and wrap up.

- Allow students to help themselves to the bread they have made. They may spread the butter on the bread if they choose.
- Review what the students made today.
- Show pictures of different types of bread available in all parts of the world.

Making Bread and Butter

(K to 12)

More information for Teachers

To offset food costs, find out about [mini food grants](#).

Refer to [Kitchen Equipment for your Classroom](#) for more preparation and food safety tips.

Curriculum Links

This lesson supports Big Ideas and Learning Standards in the Physical and Health Education [BC curriculum](#) and can also link to other subject areas.

Background

- Flour is made from wheat. Wheat is harvested on the farm and milled into fine powder.
- When all parts of a wheat kernel are milled into flour, it is considered whole grain. All purpose flour is made from wheat from which the outer part (wheat bran) and germ are removed. Whole grain whole wheat flour is more nutritious than all purpose flour. (For more information, check Health Canada's Whole Grains—Get the Facts)
- Yeast is a microbial organism. Baker's yeast is the yeast we use to make bread. It activates when warm water and sugar are added. It produces a gas—carbon dioxide—which allows the bread to rise.
- When whipping cream is shaken vigorously, the fat globules will clump together into a ball of solid fat—butter! The remaining liquid is called whey and contains many nutrients. It can be used to make certain cheeses.

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Bread in a Bag Recipe

Ingredients

1 cup (250 mL) all-purpose flour
1 package (2.25 tsp) rapid rise yeast
3 Tbsp (45 mL) sugar
3 Tbsp (45 mL) skim milk powder
1 tsp salt
1 cup (250 mL) warm water
3 Tbsp (45 mL) vegetable oil
1 cup (250 mL) whole wheat flour
about 1 cup (250 mL) additional all-purpose flour

Equipment

Measuring cups and spoons
Resealable plastic bag
Twist tie
Clean cloth (e.g. tea towel)
Muffin tin
Oven mitts
Oven

Here's how

1. Wash your hands.
2. Add the first cup of all-purpose flour, yeast, sugar, skim milk powder and salt to resealable plastic bag. Seal.
3. Shake and work bag with fingers to blend ingredients.
4. Open bag and add water and vegetable oil. Seal.
5. Mix again by working the bag with your fingers until the ingredients are blended in.
6. Open the bag and add the whole wheat flour and enough all-purpose flour to make a stiff dough. You'll need about a full cup of all-purpose flour. Start with about 3/4 cup.
7. Squeeze out the air from the bag and seal with a twist tie near the top. Work the dough by squeezing it with your fingers. Add a little more flour if needed, and work it in until the dough starts to pull away from the bag.
8. Dust your hands with flour then remove the dough from the bag. Place on a clean work surface that has been dusted with flour.
9. To knead the dough, use your fingers to fold the dough in half. Use the heel of your hand to press and push the dough. Turn the dough and repeat. Do this for at least five minutes until the dough looks smooth and elastic.
10. Grease the muffin tin.
11. Divide the dough into 48 equal pieces. Roll each piece into a ball. Place 4 balls into each cup of the muffin tin.
12. Cover and let rise for 10–15 minutes, about the length of recess. The dough should be double in size.
13. Bake at 400° F (200° C) for 10–15 minutes or until done.

Note: Adapted from Fleischmann's Yeast, ACH Food Companies, Inc.