

# Family Fun Activities

## History of Leavening

### Learn about leavening and make baking powder biscuits

When you look at a slice of bread or cake, notice the little air pockets inside. These pockets of air help make these foods light and easy to chew. The air pockets are a result of leavening, which is a practice of introducing air into the batter or dough so that the finished product is greater in volume. The word leaven comes from the Latin word "levare," meaning "to raise." There are several different ways to make a leavened baked good. You can use yeast, baking soda, baking powder, stiffly beaten egg whites, or a combination of several of these. Some time ago, breads could only be leavened with fermented yeast. This meant that the mixed dough had to sit and rise for a while, so that tiny air bubbles would form, making the dough light and airy. Once the bubbles were formed in the dough, the bread could be baked. In the oven the bubbles expanded and the bread "rose." The ancient Egyptians used this kind of leavening to make their breads. Many cultures made that breads like the tortilla, which is still a popular bread today. Some that breads were not leavened at all, but were rolled very thin so that they would cook all the way through and be tender enough to eat. Native American Indians made a flat bread with corn meal, and used a very early type of leavening made from wood ashes. The early colonists used a similar method. Although yeast was and still is a good leavener, it requires a little time to let dough rise for good leavening. In the late 1700's and early 1800's people started experimenting with different ingredients, and found several home made mixtures they could use to help their baked goods raise quickly. They found that they could mix sour milk (clabber) with other ingredients to make bubbles in their batter or dough. They would also mix pearlash (potash) with sour milk (clabbered milk) to get the same effect. Because of this new kind of leavening from a chemical reaction, the dough did not need to sit for a long time before it was baked. It could go from bowl to oven in no time. These types of baked goods are now known as "quick breads." In the mid 1800's it was discovered that cakes and biscuits (quick breads) could be made with a mixture of cream of tartar (acid ingredient) and baking soda (alkaline). Cream of tartar is a by-product resulting from the manufacture of grape wine.

In 1854, baking powder was invented, using acid phosphate instead of cream of tartar. The leavening reaction between the phosphate and baking powder was controlled, resulting in a dependable leavening action. Foods came out light, flakey and tasty, without any bitterness from pearlash and without setting milk out for days to "clabber," or sour enough to work in a recipe. Today baking powders have been refined so that there is a "double" action – some of the leavening is released when moisture is added, and then again when the temperature gets over 140 degrees F. This results in a dependable leavened baked good that is light, airy and tender.



#### Additional Activities

- 1 Make Old Fashioned Baking Powder Biscuits with Clabber Girl Baking Powder!
- 2 After reading this article, do you think you know how Clabber Girl Baking Powder got its name?
- 3 See leavening in action: Place 1/2 cup room temperature water in a bowl. Measure 1 teaspoon of baking powder and place in bowl. Watch the fizzing action as some of the leavening is released! Do you know why only some of the leavening is released in water?
- 4 Try this same experiment using vinegar and baking soda. Do you think baking soda would act in the same way if you placed it in water instead of vinegar? Why?
- 5 Make soured milk by placing a tablespoon of vinegar in a cup of milk. Let it sit for 5 minutes and stir. Now place a teaspoon of baking soda in the "soured milk." What happens?
- 6 Compare the leavening action of yeast – Place a teaspoon of yeast and 1/2 teaspoon granulated sugar in a cup of warm water. Sit it in a draft-free spot in your kitchen and cover lightly with a washcloth or kitchen towel. Check it in 5 minutes to see what has happened. Replace the towel cover and check again in 10 minutes. After 10 minutes, pour the mixture into a small bowl that has a cup of flour in it. Cover with a kitchen towel and place on stove top or warm place. Check in 1 hour to see how much the dough has risen. For baking activities with yeast, visit Lesare Yeast Corporation website.