Name: _____ Date: _____

Baking Soda and Baking Powder Are Not Twins

Circle group

Baking soda and baking powder look alike. Both are white powders. Both help cakes and muffins rise. But they are not the same. A cook cannot swap them freely.

Baking soda is one ingredient. It needs an acid to work. Buttermilk, yogurt, lemon juice, and brown sugar are acids. When the soda meets an acid and gets wet, they make bubbles of gas. The bubbles puff up the batter. This happens fast, so the batter should go into the oven soon.

Baking powder is a mix. It holds baking soda and a dry acid. A little starch keeps them apart. Add water, and they start to react. Many baking powders react again in the hot oven.

A recipe with a sour ingredient often uses baking soda. A recipe with no sour ingredient usually uses baking powder. Cooks follow the recipe. Too much of either can taste bitter.

Questions

1. What do baking soda and baking powder both do?

_____

_____

2. What does baking soda need to make bubbles?

_____

_____

3. Which two sour ingredients go well with baking soda?

_____

_____

4. What is baking powder?

_____

_____

5. Why might a cake with no sour ingredient use baking powder?

_____

_____

6. Why do cooks follow the recipe closely?

_____

_____

Words to know

acid: a sour substance, like lemon juice
batter: a thin mix of flour and liquid that is baked into a cake
react: to change when mixed with something else
starch: a white powder found in plants like corn and potatoes

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Baking Soda and Baking Powder Are Not Twins

Triangle group

Baking soda and baking powder look alike. Both are white powders in small containers, and both help cakes and muffins rise. But they are not the same thing, and a cook cannot swap them freely.

Baking soda is one ingredient. By itself it does little in a cake. It needs an acid, such as buttermilk, yogurt, lemon juice, or brown sugar. When the soda meets an acid and gets wet, the two make bubbles of gas. The bubbles puff up the batter. Because it reacts right away, the batter should usually go into the oven soon.

Baking powder is a mix. It already holds baking soda and a dry acid, along with a little starch to keep them apart. Add water, and the two parts begin to react. Many baking powders react a second time when they get hot in the oven.

A recipe with a sour ingredient often calls for baking soda. A recipe with no sour ingredient usually uses baking powder. Cooks follow the recipe closely, because too much of either one can leave a bitter taste.

Questions

1. What do baking soda and baking powder both do?

_____

_____

2. What does baking soda need before it can make bubbles?

_____

_____

3. Which two sour ingredients go well with baking soda?

_____

_____

4. What is baking powder?

_____

_____

5. Why might a cake with no sour ingredient use baking powder?

_____

_____

6. Why do cooks follow a recipe closely when using these powders?

_____

_____

Words to know

acid: a sour substance, like lemon juice
batter: a thin mix of flour and liquid that is baked into a cake
react: to change when mixed with something else
starch: a white powder found in plants like corn and potatoes

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Baking Soda and Baking Powder Are Not Twins

Square group

Baking soda and baking powder resemble each other closely. Both are white powders kept in small containers, and both help cakes and muffins rise. Nevertheless, they are not the same substance, and a cook cannot trade one for the other without thinking.

Baking soda is a single ingredient, and on its own it accomplishes very little in a cake. It requires an acid, such as buttermilk, yogurt, lemon juice, or brown sugar. When the soda meets an acid and becomes wet, the two react and produce bubbles of gas that puff up the batter. Because the reaction begins immediately, the batter should usually go into the oven soon afterward.

Baking powder, by contrast, is a mixture. It already contains baking soda and a dry acid, along with a little starch that keeps the two apart. Once water is added, the two parts begin to react, and many baking powders react a second time when they heat up in the oven.

A recipe containing a sour ingredient often calls for baking soda, whereas a recipe without one usually relies on baking powder. Cooks follow recipes carefully, since too much of either powder can leave a bitter taste.

Questions

1. What do baking soda and baking powder have in common?

_____

_____

2. What does baking soda require before it can make bubbles?

_____

_____

3. Which two sour ingredients pair well with baking soda?

_____

_____

4. What is baking powder?

_____

_____

5. Why might a cake without a sour ingredient use baking powder?

_____

_____

6. Why do cooks follow recipes carefully when using these powders?

_____

_____

Words to know

acid: a sour substance, like lemon juice
batter: a thin mix of flour and liquid that is baked into a cake
react: to change when mixed with something else
starch: a white powder found in plants like corn and potatoes

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: Baking Soda and Baking Powder Are Not Twins

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: Baking Soda and Baking Powder Are Not Twins

Easier · 147 words · Flesch-Kincaid grade 4.1

1. They help cakes and muffins rise.
2. An acid, and it has to get wet.
3. Any two of buttermilk, yogurt, lemon juice, or brown sugar.
4. A mix that holds baking soda and a dry acid.
5. Baking powder has its own acid, so it needs no sour ingredient.
6. Too much of either one can taste bitter.

Triangle: Baking Soda and Baking Powder Are Not Twins

This passage · 179 words · Flesch-Kincaid grade 5.5

1. They help cakes and muffins rise.
2. An acid, and it must get wet.
3. Any two of buttermilk, yogurt, lemon juice, or brown sugar.
4. A mix that already holds baking soda and a dry acid.
5. Baking powder has its own acid, so it can make bubbles without any sour ingredient.
6. Too much of either one can leave a bitter taste.

Square: Baking Soda and Baking Powder Are Not Twins

Harder · 196 words · Flesch-Kincaid grade 9

1. Both help cakes and muffins rise.
2. An acid, and it must become wet.
3. Any two of buttermilk, yogurt, lemon juice, or brown sugar.
4. A mixture that already contains baking soda and a dry acid.
5. Baking powder carries its own acid, so it can make bubbles without a sour ingredient.
6. Too much of either powder can leave a bitter taste.