Name: _____ Date: _____

Bread Flour and Cake Flour Are Not the Same

Circle group

Walk down the baking aisle of a store. You will see bags of white flour. One says bread flour. Another says cake flour. A third says all-purpose. They look alike, but a baker will tell you they act very differently. The reason is protein.

All wheat flour is made by grinding wheat kernels. Wheat has proteins that join together when flour meets water. Kneading means pressing and folding dough. It helps the proteins link into a stretchy web called gluten. Gluten is a little like a net of rubber bands. It traps the gas made by yeast, so the dough can rise.

Bread flour has more protein than the others. Its dough makes lots of gluten. That gives bread a strong, chewy feel, and the loaf puffs up tall. Cake flour is the opposite. It has less protein, so it makes only a weak web. The cake turns out soft and tender. All-purpose flour is in the middle. It is a handy choice for cookies, pancakes and many other foods.

Bakers also change how much they mix. A pie crust or muffin batter is handled gently, so the gluten does not get too strong. Bread is kneaded for a long time to make plenty. The right flour and the right mixing help a recipe come out well.

Questions

1. Why do the flours act differently?

_____

_____

2. What is gluten?

_____

_____

3. What does gluten do with the gas made by yeast?

_____

_____

4. Which flour has the most protein?

_____

_____

5. Why does cake flour make a soft, tender cake?

_____

_____

6. Why are muffin batters handled gently?

_____

_____

Words to know

kernels: the seeds of grain plants such as wheat
kneading: pressing and folding dough over and over
gluten: the stretchy web made when wheat proteins and water mix
tender: soft and easy to bite or cut

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: _____

Bread Flour and Cake Flour Are Not the Same

Triangle group

Walk down the baking aisle of a grocery store and you will see several bags of white flour. One says bread flour, another says cake flour, and a third says all-purpose. They may look alike, but a baker will tell you that they behave quite differently. The reason is protein.

All wheat flour is made by grinding wheat kernels. Wheat holds proteins that join together when flour is mixed with water. Kneading, which means pressing and folding dough, helps those proteins link up into a stretchy web called gluten. Gluten acts a little like a net of rubber bands, and it traps the gas made by yeast, so the dough can rise.

Bread flour has more protein than the others. Its dough makes lots of gluten, which gives bread a strong, chewy texture and lets loaves puff up tall. Cake flour is the opposite. It has less protein, so it forms only a weak web, and the cake turns out soft and tender. All-purpose flour sits in the middle, which makes it a handy choice for cookies, pancakes and many other recipes.

Bakers also change how much they mix. A pie crust or muffin batter is handled gently, so that gluten does not get too strong. A loaf of bread is kneaded for a long time to make plenty. Picking the right flour and the right amount of mixing helps every recipe come out well.

Questions

1. What is the main reason the flours behave differently?

_____

_____

2. What is gluten?

_____

_____

3. What does gluten do to the gas made by yeast?

_____

_____

4. Which flour has the most protein?

_____

_____

5. Why does cake flour make a soft and tender cake?

_____

_____

6. Why are muffin batters handled gently?

_____

_____

Words to know

kernels: the seeds of grain plants such as wheat
kneading: pressing and folding dough over and over
gluten: the stretchy web made when wheat proteins and water mix
texture: how something feels or chews, such as soft or crunchy
tender: soft and easy to bite or cut

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: _____

Bread Flour and Cake Flour Are Not the Same

Square group

Stroll down the baking aisle of any grocery store and you will encounter several bags of white flour. One is labeled bread flour, another cake flour, and a third all-purpose. They may appear identical, yet an experienced baker will assure you that they behave quite differently. The explanation lies in protein.

All wheat flour is produced by grinding wheat kernels. Wheat contains proteins that bond together when flour is combined with water. Kneading, which means pressing and folding the dough repeatedly, encourages those proteins to link into a stretchy web called gluten. Gluten works somewhat like a net of rubber bands, and it captures the gas produced by yeast, which allows the dough to rise.

Bread flour contains more protein than the others. Its dough develops abundant gluten, which gives bread a strong, chewy texture and allows loaves to puff up tall. Cake flour is the opposite. It contains less protein, so it forms only a feeble web, and the resulting cake is soft and tender. All-purpose flour falls in the middle, making it a convenient choice for cookies, pancakes and countless other recipes.

Bakers also adjust how much they mix. A pie crust or muffin batter is handled gently so that the gluten does not become too strong, whereas a loaf of bread is kneaded for a long time to build plenty. Selecting the proper flour and the proper amount of mixing helps every recipe turn out well.

Questions

1. What is the main reason the flours behave differently?

_____

_____

2. What is gluten?

_____

_____

3. What does gluten do with the gas produced by yeast?

_____

_____

4. Which of the flours contains the most protein?

_____

_____

5. Why does cake flour yield a soft and tender cake?

_____

_____

6. Why are muffin batters handled gently?

_____

_____

Words to know

kernels: the seeds of grain plants such as wheat
kneading: pressing and folding dough over and over
gluten: the stretchy web made when wheat proteins and water mix
texture: how something feels or chews, such as soft or crunchy
tender: soft and easy to bite or cut

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: Bread Flour and Cake Flour Are Not the Same

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

Circle: Bread Flour and Cake Flour Are Not the Same

Easier · 219 words · Flesch-Kincaid grade 2.6

1. They have different amounts of protein.
2. A stretchy web made when wheat proteins and water mix.
3. It traps the gas so the dough can rise.
4. Bread flour.
5. It has less protein, so it makes only a weak web.
6. Too much mixing would make the gluten too strong.

Triangle: Bread Flour and Cake Flour Are Not the Same

This passage · 237 words · Flesch-Kincaid grade 4.9

1. They have different amounts of protein.
2. A stretchy web that forms from wheat proteins when flour is mixed with water.
3. It traps the gas so the dough can rise.
4. Bread flour.
5. It has less protein, so it forms only a weak web of gluten.
6. Too much mixing would make the gluten too strong.

Square: Bread Flour and Cake Flour Are Not the Same

Harder · 241 words · Flesch-Kincaid grade 7.4

1. They contain different amounts of protein.
2. A stretchy web that forms when wheat proteins are combined with water.
3. It captures the gas, which allows the dough to rise.
4. Bread flour.
5. It contains less protein, so it forms only a feeble web of gluten.
6. Too much mixing would make the gluten too strong.