Name: _____ Date: _____

Yeast: The Fungus in the Bread

Circle group

A loaf of bread rises because of a living thing that is too small to see. It is yeast. Yeast is a fungus with just one cell. It is a cousin of mushrooms and molds. Baker's yeast is sold dry in packets. The cells rest there until they are needed.

A baker mixes the yeast with flour and warm water. The wet and the warmth wake the cells. They start to eat sugar from the flour. As the yeast eats, it gives off a gas called carbon dioxide and a little alcohol. This is called fermentation.

Wheat dough is stretchy because of gluten, a protein in the flour. The stretchy dough traps the gas in many tiny bubbles. The bubbles grow, and the dough puffs up. It can double in size. This is the rise.

Next, the dough goes in a hot oven. The heat makes the gas grow once more. Then the dough sets firm. The bubbles become the holes you see in a slice. The heat also stops the yeast, drives off the alcohol, and browns the crust.

Yeast is used in other foods, too. Sourdough bakers keep a mix of flour and water called a starter. Yeast and helpful bacteria grow together in it. A spoonful of starter begins each new batch of bread. With regular feeding, a starter can stay alive for years. Different kinds of yeast give breads their own flavors.

People have used yeast to bake and brew for thousands of years. They did this long before they knew it was alive.

Questions

1. What kind of living thing is yeast?

_____

_____

2. What wakes the dry yeast cells?

_____

_____

3. What gas does the yeast give off as it eats?

_____

_____

4. Why does the dough puff up?

_____

_____

5. What would likely happen if the dough could not stretch?

_____

_____

6. Why does a slice of bread have holes?

_____

_____

Words to know

fungus: a living thing such as a mushroom, mold or yeast
fermentation: the process in which yeast feeds and gives off gas
gluten: a stretchy protein found in wheat flour

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: _____

Yeast: The Fungus in the Bread

Triangle group

A loaf of bread rises because of a living thing too small to see. Yeast is a fungus, a single-celled organism that is related to mushrooms and molds, and baker's yeast is sold dried in packets, where the cells wait in a resting state.

The process begins when a baker mixes the yeast with flour and warm water. The moisture and gentle warmth wake the cells, and they begin to feed on sugars from the flour. As the yeast feeds, it gives off carbon dioxide gas and a little alcohol, a process called fermentation.

Wheat dough is stretchy because of a protein in the flour called gluten. The stretchy dough traps the gas in thousands of tiny bubbles, and as the bubbles grow, the dough puffs up and can double in size, which is called the rise.

Then the dough goes into a hot oven. The heat makes the gas expand one last time, and then the dough sets firm, so the bubbles become the holes you see inside a slice. The heat also stops the yeast, drives off the alcohol, and browns the crust.

Yeast is useful in other foods, too. Sourdough bakers keep a mixture of flour and water called a starter, in which yeast and helpful bacteria grow together, and a spoonful of the starter is used to begin each new batch of bread. With regular feeding, a starter can be kept alive for years, and different kinds of yeast give breads their own flavors.

People have used yeast for baking and brewing for thousands of years, long before anyone knew that it was alive.

Questions

1. What kind of living thing is yeast?

_____

_____

2. What wakes up the dried yeast cells?

_____

_____

3. What gas does the yeast give off as it feeds?

_____

_____

4. Why does the dough puff up?

_____

_____

5. What would probably happen if a dough could not stretch?

_____

_____

6. Why does a slice of bread have holes in it?

_____

_____

Words to know

fungus: a living thing such as a mushroom, mold or yeast
organism: any living thing
fermentation: the process in which yeast feeds and gives off gas
gluten: a stretchy protein found in wheat flour
expand: to get bigger and take up more space

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: _____

Yeast: The Fungus in the Bread

Square group

A loaf of bread rises because of a living thing that is far too small to see. Yeast is a fungus, a single-celled organism that is related to mushrooms and molds, and baker's yeast is commonly sold in dried form in small packets, where the cells remain in a resting state until they are needed.

The process begins when a baker blends the yeast with flour and warm water. The moisture and gentle warmth awaken the cells, and they start to feed on the sugars that come from the flour. As the yeast feeds, it releases carbon dioxide gas and a small amount of alcohol, a process known as fermentation.

Wheat dough is stretchy because of a protein in the flour called gluten. The elastic dough captures the gas in thousands of tiny bubbles. As the bubbles swell, the dough puffs up and can double in size, which is what bakers call the rise.

Next, the dough is placed in a hot oven. The heat makes the trapped gas expand one final time, after which the dough sets firm, so that the bubbles become the holes visible inside a slice. The heat also stops the yeast, drives off the alcohol, and browns the crust.

Yeast is useful in other foods as well. Sourdough bakers keep a mixture of flour and water called a starter, in which yeast and helpful bacteria grow together, and a spoonful of the starter is used to begin each new batch of bread. With regular feeding, a starter can be kept alive for years, and different kinds of yeast give breads their own distinctive flavors.

People have relied on yeast for baking and brewing for thousands of years, long before anyone understood that it was alive.

Questions

1. What kind of living thing is yeast?

_____

_____

2. What awakens the dried yeast cells?

_____

_____

3. What gas does the yeast release as it feeds?

_____

_____

4. Why does the dough puff up?

_____

_____

5. What would probably happen if the dough were unable to stretch?

_____

_____

6. Why does a slice of bread contain holes?

_____

_____

Words to know

fungus: a living thing such as a mushroom, mold or yeast
organism: any living thing
fermentation: the process in which yeast feeds and gives off gas
gluten: a stretchy protein found in wheat flour
expand: to get bigger and take up more space

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: Yeast: The Fungus in the Bread

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

Circle: Yeast: The Fungus in the Bread

Easier · 258 words · Flesch-Kincaid grade 2.7

1. A fungus with just one cell.
2. Wetness and warmth.
3. Carbon dioxide.
4. The stretchy dough traps the gas in bubbles that grow.
5. The gas would escape and the dough would not puff up.
6. The holes are the gas bubbles that were trapped and then baked firm.

Triangle: Yeast: The Fungus in the Bread

This passage · 269 words · Flesch-Kincaid grade 7.5

1. A single-celled fungus.
2. Moisture and gentle warmth.
3. Carbon dioxide.
4. The stretchy dough traps the gas in tiny bubbles that grow.
5. The gas would escape and the dough would not puff up.
6. The holes are the bubbles of gas that were trapped and then baked firm.

Square: Yeast: The Fungus in the Bread

Harder · 291 words · Flesch-Kincaid grade 8

1. A single-celled fungus.
2. Moisture and gentle warmth.
3. Carbon dioxide.
4. The elastic dough captures the gas in tiny bubbles that swell.
5. The gas would escape and the dough would not puff up.
6. The holes are the gas bubbles that were captured and then baked firm.