

Bread

Objective

Students will read about bread and answer comprehension questions.

Background

Bread may be the ancestor of all prepared foods. The first bread was made in Neolithic times, nearly 12,000 years ago. It was probably made by crushing grain and mixing it with water. The dough was then baked in the sun or laid on heated stones and covered with hot ashes. The Hopi of New Mexico still make a traditional bread, called “piki bread,” by mixing juniper ash with cornmeal and spreading it on a hot stone. Then they lift the paper-thin layer from the stone by rolling it like a jelly roll.

Loaves and rolls made and baked over 5,000 years ago have been found in ancient Egyptian tombs, and wheat has been found in pits where human settlements flourished 8,000 years ago. In the Stone Age, people made solid cakes from stone-crushed barley and wheat. Wheat and other grains provided ancient people with a reliable food source which would keep through the winter months and multiply in the summer. This allowed them time to develop other useful skills beyond what they required to feed themselves.

Bread can be unleavened or leavened with yeast. When flour comes in contact with water and remains idle for a period of time, it begins to rise. In modern processes, yeast is added to aid in the rising, but even without yeast, dough will begin to ferment, and the resulting gases will cause the dough to rise. The Egyptians were the first to discover that this process would produce a light, expanded loaf. The Egyptians also invented a closed oven in which to bake the bread.

The ancient Hebrews were in such a hurry to get away from their Egyptian captors that they made their bread without leavening. Today Jewish people celebrate Passover, their escape from the Egyptians, with unleavened bread—matzo. Bread without leavening also represents truth in Jewish tradition, because bread that is unleavened retains the true flavor of the grain from which it is made.

Traditionally, people made bread from whatever grain grew best in the area where they lived. Wheat, rye, corn, barley, millet, kamut and spelt are some of the grains used around the world. Wheat flour is preferred because of its gluten content. Gluten is what gives bread its elastic quality. Bread is such a powerful food that ancient Egyptian governments controlled its production and distribution as a way to control the people. In France the shortage of bread helped start the French Revolution.

A millstone used for grinding grain has been found that is thought to be 7,500 years old. For thousands of years people used stone wheels powered by wind to grind wheat into flour for bread. In the middle of the nineteenth century, a Swiss engineer invented a new type of mill with rollers made of

Oklahoma Academic Standards

GRADE 3

Speaking and Listening:
R.1,2,3. Reading and Writing
Process: R.1,3. Critical Reading
and Writing: R.7. Vocabulary:
R.1,3,5

GRADE 4

Speaking and Listening:
R.1,2,3. Reading and Writing
Process: R.1,3,4. Critical
Reading and Writing: R.7.
Vocabulary: R.1,3,5

GRADE 5

Speaking and Listening:
R.1,2,3. Reading and Writing
Process: R.1,3. Vocabulary:
R.1,3,5

steel which operated one above the other and were driven by steam-engines. Meanwhile, the North American prairies were found to be ideally suited to grow wheat. This, together with the invention of the roller-milling system, meant that for the first time in history, whiter flour (and therefore bread) could be produced at a price which brought it within the reach of everyone— not just the rich.

Wheat came to our continent with European settlers. Before that, maize was the grain used for bread-making in the Americas. Maize is what we now call corn, but the word “corn” actually means any kind of grain. For centuries, maize was used to make a flat bread that we know as tortillas. According to Mayan legend, tortillas were invented by a peasant for his hungry king. The first tortillas were made over 12,000 years ago. Today they are also made with wheat.

Among native Mexicans, tortillas are commonly used as eating utensils. In the Old West, cowpokes realized the versatility of tortillas and used tortillas filled with meat or other foods as a convenient way to eat around the campfire.

Flour tortillas are a low-fat food and contain iron along with other B vitamins. They have about 115 calories with 2-3 grams of fat per serving. Corn tortillas are a low-fat, low-sodium food and contain calcium, potassium and fiber. An average serving contains about 60 calories with 1 gram of fat.

Both whole wheat flour and all-purpose (white) flour are made from kernels of wheat. A wheat kernel is divided into three major parts—bran, endosperm and germ. All-purpose flour is made from only ground endosperm. Whole wheat flour is made by grinding the entire wheat kernel. When shopping for 100 percent whole wheat bread, look for a label that has the words “whole wheat.”

Enriched white bread has about the same nutrients as whole wheat bread. Both are excellent sources of carbohydrates, fiber, protein, B-vitamins and important trace minerals. Whole wheat bread contains 5.3 percent dietary fiber, while white bread has only 1.6 percent. Scientists tell us that an adequate amount of fiber in our diet may help prevent certain types of cancer. Fiber is found in mainly whole grain breads and cereals and in fresh fruits and vegetables.

Procedures

1. Hand out copies of the reading page included with this lesson.
 - Students will read the information on bread.
 - Stop after each paragraph to discuss unfamiliar vocabulary and the main idea of the paragraph.
 - Ask inference questions, such as, “After reading this paragraph, do you think wheat is important to Oklahoma? What clues from the paragraph tell you that?”
 - Students will summarize what they just read, using only one sentence.
2. Hand out copies of the “Inferences, Main Idea and Summarizing” worksheet included with this lesson.
 - Students will complete the worksheet independently.
 - On the back of the booklet write a story about the needs of a plant.
3. Bring a variety of cooked pastas for students to sample. Include whole wheat pastas and pastas made with spinach and other vegetables. Provide a simple spaghetti sauce and canned Parmesan cheese for a snack.
 - Students will write observations and compare and contrast. Students will develop their own criteria for comparison (e.g., texture, shape, flavor, etc.)

Vocabulary

ancient—of or relating to a period of time long past

barley—a cereal grass with flowers in dense spikes

bran—The outer layers of the grain of cereals such as wheat, removed during the process of milling and used as a source of dietary fiber

economy—of, or relating to, or based on the production, distribution and consumption of goods and services

endosperm—The nutritive portion of a seed

enriched—improved the value of (food) for nutrition by adding vitamins and minerals in processing

fiber—mostly indigestible material in food that stimulates the intestine to move its contents along

flourish—to grow well

germ—the embryo of a seed

mill—a machine used in grinding raw material

millstone—one of a pair of cylindrical stones used in a mill for grinding grain

nutrient—furnishing nourishment

prairie—a large area of level or rolling grassland

reliable—dependable

barley— a cereal grass with flowers in dense spikes; also its seed, used especially in foods (as soups and cereals), or as feed for livestock

bread—a baked food made of flour or meal

fiber— mostly indigestible material in food that stimulates the intestine to move its contents along

gluten—a tough elastic protein substance in flour especially from wheat that holds together dough and makes it sticky

kamut—an ancient relative of durum wheat

leavened— raised (dough) with a leaven, or material (as baking powder) used to produce a gas that makes dough or batter rise and become light

maize—Indian corn

rye—a hardy annual cereal grass widely grown for grain and as a cover crop

spelt—a kind of wheat

tortilla—a thin round of unleavened cornmeal or wheat flour bread

unleavened—made without leavening

wheat—a cereal grain that can be made into a fine white flour used mostly in breads, baked goods (as cakes and crackers), and pasta as (as macaroni or spaghetti) and that is used in animal feeds

yeast—a one-celled fungus that produces alcohol during the process of fermentation; a commercial product containing living yeast cells that is used mostly as a leaven especially in baking bread

Bread

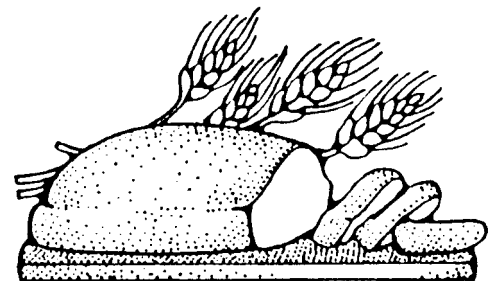
Bread has been an important food for humans from earliest times. During the Stone Age, people made solid cakes from stone-crushed barley and wheat. For thousands of years people used stone wheels powered by wind to grind wheat into flour for bread. Hundreds of years ago a Swiss engineer invented a new type of mill, with rollers made of steel. The rollers operated one above the other and were driven by steam-engines.

At about the same time, settlers on the north American frontier found that the prairies were a perfect place to grow wheat. This discovery, together with the invention of the roller-milling system, meant that whiter flour could be produced at a lower price. Whiter flour makes better bread. For the first time in history, everyone could afford bread—not just the rich.

Hard red winter wheat is the kind of wheat used for making bread. Hard red winter wheat is Oklahoma's number one crop and is very important to the Oklahoma economy. In 2009, 77 million bushels of wheat were harvested at a value of \$370 million. Oklahoma ranks number five in the nation in the production of winter wheat.

Enriched white bread has about the same nutrients as whole wheat bread. Both are excellent sources of carbohydrates, fiber, protein, B-vitamins and important minerals. Whole wheat bread contains more fiber than white bread. Scientists tell us that an adequate amount of fiber in our diets may help prevent certain types of cancer. Fiber is found in mainly whole grain breads and cereals and in fresh fruits and vegetables.

Both whole wheat flour and all-purpose (white) flour are made from kernels of wheat. A wheat kernel is divided into three major parts—bran, endosperm and germ. All-purpose flour is made from only ground endosperm. Whole wheat flour is made by grinding the entire wheat kernel. When shopping for 100 percent whole wheat bread, look for a label that has the words “whole wheat.”



Name _____

Bread: Inference, Main Idea, Summary

Read the Reading Page about Bread and answer the following questions.

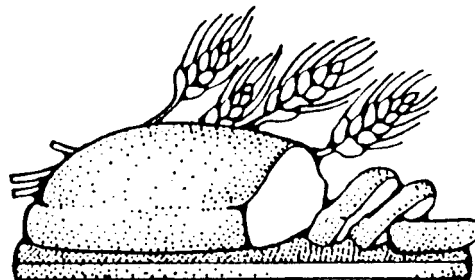
1. From this article, you could guess that:
 - a. Few people in Oklahoma grow wheat.
 - b. Many people in Oklahoma grow wheat.
 - c. Wheat is not an important crop in Oklahoma.

2. After reading this article you can tell that:
 - a. All purpose flour is made from one part of the wheat kernel.
 - b. All purpose flour is made from the entire wheat kernel.
 - c. All purpose flour is not made from wheat.

3. What is the main idea of this article?
 - a. Wheat is the number one crop in Oklahoma.
 - b. White bread has the same nutrients as whole wheat bread.
 - c. Bread is an important nutritious food and is made from wheat that has been ground into flour.

4. Look back at paragraph 3. Summarize the paragraph in one sentence:

5. What is paragraph 5 mostly about?
 - a. Whole wheat flour is made by grinding the entire wheat kernel.
 - b. All purpose flour is made by grinding only the endosperm
 - c. Both whole wheat flour and all purpose flour are made from kernels of wheat.



Name _____

Bread: Inference, Main Idea, Summary (answers)

Read the Reading Page about Bread and answer the following questions.

1. From this article, you could guess that:
 - a. Few people in Oklahoma grow wheat.
 - b. Many people in Oklahoma grow wheat.
 - c. Wheat is not an important crop in Oklahoma.

2. After reading this article you can tell that:
 - a. All purpose flour is made from one part of the wheat kernel.
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3. What is the main idea of this article?
 - a. Wheat is the number one crop in Oklahoma.
 - b. White bread has the same nutrients as whole wheat bread.
 - c. Bread is an important nutritious food and is made from wheat that has been ground into flour.

4. Look back at paragraph 3. Summarize the paragraph in one sentence:
Wheat is an important crop in Oklahoma and is important to Oklahoma's economy.

5. What is paragraph 5 mostly about?
 - a. Whole wheat flour is made by grinding the entire wheat kernel.
 - b. All purpose flour is made by grinding only the endosperm
 - c. Both whole wheat flour and all purpose flour are made from kernels of wheat.

