



#10109 BREAD COMES TO LIFE

INFORMED DEMOCRACY, 2002
Grade Level: Ps-6
20 mins.
2 Instructional Graphics Enclosed

DESCRIPTION

Where does bread come from? Follow one man's project as closeup and time-lapse photography chart the growth of wheat from seed to harvest to flour. Watch as ingredients for wheat bread are mixed and kneaded, then eventually baked to create a loaf of warm bread. Follow the same procedure through a huge manufacturing process. Lily Tomlin narrates in verse accompanied by George Winston's music.

ACADEMIC STANDARDS

Subject Area: Geography–Environment and Society

- Standard: Understands the nature of scientific inquiry
 - ♦ Benchmark: Knows the role that resources play in our daily lives (resources used to generate electricity; resources used to produce automobiles, medicines, clothing, and food) (See INSTRUCTIONAL GOALS 1 and 3.)

Subject Area: Science–Physical Sciences

- Standard: Understands the structure and properties of matter
 - ♦ Benchmark: Knows that things can be done to materials to change some of their properties (e.g., heating, freezing, mixing, cutting, dissolving, bending), but not all materials respond the same way to what is done to them (See INSTRUCTIONAL GOALS 4.)

INSTRUCTIONAL GOALS

1. To explain the steps of making bread.
2. To contrast making a loaf of bread by hand with making many loaves by machine.
3. To show the wide variety of food made from bread dough.
4. To demonstrate how to make a loaf of bread.
5. To stimulate a sense of enjoyment in the viewer to learn about bread.

VOCABULARY

- | | |
|-----------------------------|-----------------|
| 1. blade (of grass) | 8. grain |
| 2. chaff | 9. grind |
| 3. combine (farm equipment) | 10. gluten |
| 4. cultivate | 11. loaf/loaves |
| 5. dough | 12. sifter |
| 6. flour | 13. threshing |
| 7. from scratch | 14. yeast |

BEFORE SHOWING

1. Examine a picture or an actual strand of wheat. Name specific parts and functions.
2. Discuss any experiences of watching bread being made or smelling fresh bread.
3. Write on the overhead or board all ingredients that are likely found in bread. Save for comparison at the end of the video.
4. Name as many different forms of bread as possible (for example, loaves, crackers, pretzels, etc.).
5. Explain time-lapse photography.



DURING SHOWING

1. View the video more than once, with one showing uninterrupted.
2. Pause the video during the time-lapse sequence of bread-rising. Explain that it takes much more time than the video shows for bread to rise.
3. Pause the video at the time-lapse scene of the growing wheat seeds, roots, and plants. Explain that it takes a seed much longer to grow than what is shown in the video.
4. Pause the video when the yeast is multiplying in water, as the baker is making bread. Explain that this scene *is* real time, not time-lapse.

AFTER SHOWING

Discussion Items and Questions

1. Explain why bread has holes in it.
2. Describe the process of making bread from scratch. Include growing wheat from seeds. (See INSTRUCTIONAL GRAPHICS.)
3. What does a threshing machine do? What other food or plants might a threshing machine be used for?
4. Discuss what it means to say that bread is "the staff of life."
5. How can making bread be an art?
6. The term *bread* is slang to mean money. Discuss why this might be.
7. "Wheat sprouts into blades of grass." How is this grass different from the grass on a lawn?

C a p t i o n e d M e d i a P r o g r a m

8. When wheat grains are separated from the chaff, what are the wheat grains used to make? What may the chaff be used for?
9. Research grains other than wheat that are used to make bread.
10. Some people are allergic to wheat. What foods besides bread should these people avoid eating?
11. List the ingredients used to make bread in the video. Compare this to the list created before showing the video. Discuss what may happen if any of the ingredients are missing.
12. Compare and contrast making bread with making cookies.

Applications and Activities

1. Make a Venn diagram comparing bread made by hand with bread made in a factory.
2. Research where yeast comes from. Locate a company that makes yeast. Write a letter requesting information about the processing and production of their product.
3. Tour a local bakery and arrange to interview the baker. Ask the baker prepared questions about making bread and the training needed for the job.
4. Survey people to find out what they like to put on bread (honey, jam, peanut butter, etc.). From the data, make a bar graph or pie chart to show the results. Discuss the findings.
5. Write a poem about bread as a class. Include stanzas on the process of making bread, the many appearances of bread, and the senses (smell, taste, and touch) in relation to bread.
6. Grow wheat in the classroom.
 - a. Buy whole grains of wheat in a natural food store or send \$1 and a current postage stamp to Wheat Berry Offer, Bread Comes to Life Project, P.O. Box 67, Santa Cruz, CA 95063.
 - b. Fill a small clay pot with potting soil. Evenly spread a layer of grains over the top of the soil without overlapping seeds.
 - c. Cover the seeds with a thin layer of soil.
 - d. Water to moisten the soil and keep it moist (but not drenched) each day.
 - e. In five to seven days the seeds will sprout into green blades that require little water.
 - f. When the seeds grow to about six inches, pinch off 10-12 blades at a time, and chew them to extract the juice.
7. Experience old-fashioned chewing gum.
 - a. Place about 50 grains of wheat in your mouth, crunch down slowly, and start chewing.
 - b. Continue chewing for a few minutes, swallowing the excess saliva, but not the grains.
 - c. Keep chewing until the little mound of dough inside your mouth gets smoother. It soon turns into a wad of old-fashioned farmer's chewing gum.
8. Look at the ingredients on a loaf of bread. Compare this list with the ingredients used to make bread in the video. Why are there differences?

C a p t i o n e d M e d i a P r o g r a m

9. Using only the ingredients from the video, make a loaf of bread. (See INSTRUCTIONAL GRAPHICS.)
10. Visit a health food store or health food section of a grocery store. Write the names of products that contain the word *wheat*.
11. Make a short videotape of people eating bread at lunch or other times. Record their opinions and experiences eating and making bread.
12. Research and record the names for bread types specific to other cultures and countries (for example focaccia from Italy and tortillas from Mexico).
13. Read children's books about bread. Some suggested titles are:
 - a. *Everybody Bakes Bread* by Norah Dooley
 - b. *Sun Bread* by Elisa Kleven
 - c. *Bread and Jam for Frances* by Russel Hoban
 - d. *Bread* by Claire Llewellyn
 - e. *Bread Around the World* by Jo Ellen Moore
 - f. *Tony's Bread* by Tomie De Paola



COMMUNICATION SKILLS

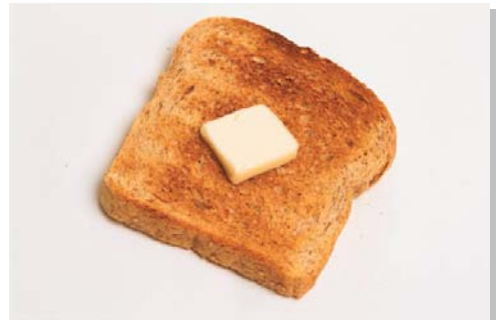
1. The entire video is narrated in rhymed verse. Replay any part of it and copy several verses. Find rhyming words. Read the verses keeping a beat by clapping hands or tapping.
2. Find signs used for bread around the world. Discuss why each country might have chosen their sign.
3. Pretend someone did not know sign language or English. Discuss ways to communicate the concept of bread without using sign language or written English.

SUMMARY

Bread Comes to Life is the new 22-minute live-action video with time-lapse photography and animation that shows how the "staff of life" begins with a grain of wheat and becomes a loaf of bread. From a backyard wheat patch and home kitchen to a large scale farm, a commercial mill, and a production bakery, this is the tell-all tale of the sowing, growing, reaping, threshing, milling, mixing, shaping, kneading, rising, and baking of bread. So whether it's from the grocery shelf or baked at home, here is the story of the daily life of a loaf of bread.

CMP RELATED RESOURCES

- [Baking Bread #8625](#)
- [The Little Red Hen #2671](#)
- [Pumpkin Circle #3645](#)



World Wide Web



The following Web sites complement the contents of this guide; they were selected by professionals who have experience in teaching deaf and hard of hearing students. Every effort was made to select accurate, educationally relevant, and “kid safe” sites. However, teachers should preview them before use. The U.S. Department of Education, the National Association of the Deaf, and the Captioned Media Program do not endorse the sites and are not responsible for their content.

- **BREAD COMES TO LIFE**

<http://www.breadcomestolife.com/toc.html>

This Web site is for teachers, parents, bakers, gardeners, and bread lovers around the world and provides free information, free educational activities, and resources for sale.

- **MINI BREAD MONSTERS**

<http://www.indoindians.com/mbm.htm>

This is a delightful Web site that gives clear and simple directions on making dough art for kids, specifically mini bread monsters, fully edible.

- **WHEAT HISTORY**

<http://www.historyforkids.org/learn/food/wheat.htm>

A comprehensive site with the 10- to 12-year-old in mind about the history of wheat with numerous links to subject areas and other countries.

- **THE SCIENCE OF BREAD**

<http://www.exploratorium.edu/cooking/bread/index.html#>

Subtopics in this site hosted by the San Francisco Exploratorium are Kitchen Lab, Bread Science 101, Crusty Science, Breads of the World, and Share and Discuss. It also covers a microscopic look at bread and exploring gluten.

INSTRUCTIONAL GRAPHICS

- FROM SEED TO BREAD
- RECIPE FOR BAKING BREAD

From Seed to Bread

Directions: Cut out the steps below. Glue them in the order that they happen. Then draw a picture of each one.



1	2	3
4	5	6

Steps

Separate wheat from chaff.	Bake bread in the oven.	Cut the wheat.
Mix ingredients for bread.	Plant wheat seeds.	Grind wheat into flour.

Captioned Media Program

Recipe for Baking Bread

Recipe

- 1 ½ cups of water
- ¼ cup of honey
- 1 packet of active dry yeast
- ¼ cup of vegetable oil
- 2 teaspoons of salt
- 3 ½ cups of whole wheat bread flour



Procedure

Combine the ingredients, one at a time, in a large bowl in the order presented. Add the flour, one cup at a time, and keep a half-cup aside until the dough is ready to knead. Blend with a spoon and/or your hands until it begins to form a lump.

Let it sit for ten minutes so the flour can more fully absorb the water. Dust your hands with a little of the extra flour, and knead as follows: (1) Gently push the dough away from you so that it flattens out, (2) give it a quarter turn, and (3) fold it in half toward you. Do this as many as 100 times. Pour a little oil into the mixing bowl, and roll the kneaded dough inside the bowl. Cover the bowl with a dishcloth, and set it aside to allow the dough to rise. Place where there are no drafts.

After about an hour, punch the dough down in the bowl to release the carbon dioxide made by the yeast. Knead it another 25 to 50 times. Shape it into a ball, and press it into a greased standard metal bread pan (8 ½ by 4 ½ inches). Cover it with a cloth, and let it rise until it's about a half-inch over the brim of the pan. Bake it at 350° for 45 to 60 minutes. To know if it is done, remove it from the pan and tap the bottom of the loaf. A clear hollow sound means it's fully baked. Set it on a wire rack, and let it cool.

Captioned Media Program