



STEMsational Ag: The Virtual Farm

MIDDLE TENNESSEE STATE UNIVERSITY



Module 1: Cereal - Thinking Outside the Box UNIT 2: COOKING WITH WHOLE GRAINS Grades 6 - 8



National Institute of Food and Agriculture
U.S. DEPARTMENT OF AGRICULTURE



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STEMsational Ag—The Virtual Farm

Welcome to Module 1

Unit 2: Cooking with Whole Grains



Introduction:

In this unit, learn how to identify whole versus refined grains, as well as several fun ways to prepare them.

Pre-assessment:

- Take out a piece of paper and write your answers to the following questions or type them in a word document on your computer.
- List 3 things you know about whole grains.
- View the three images of Whole Grain Stamps below and inspect what you see:





- Then, answer these questions:
 1. Have you seen these stamps before now? If so, where?
 2. What do the stamps signal? For whom?
 3. Why are there three versions?
 4. Do you see any products in your own home bearing one of the stamps?
Which version?

Purpose:

The purpose of this lesson is to learn how to cook with healthier whole grain swaps.

Student Learning Outcomes for the Unit:

- Students will familiarize themselves with the Whole Grain Stamp.
- Students will dramatize a skit that asks common questions about whole grains.
- Students will identify ways to adjust ingredients to improve nutrient density.
- Students will increase whole grains and use other healthy swaps to bake muffins.
- Students will learn about a whole grains-based career in the baking and pastry arts.
- Students will interpret and extend the saying “Make half your grains whole.”

National Agricultural Literacy Outcomes

Food, Health, and Lifestyle, Theme 3

T3.6-8

- A. Demonstrate safe methods for food handling, preparation, and storage in the home.
- B. Evaluate food labels to determine food sources that meet nutritional needs.
- C. Evaluate serving size related to nutritional needs.
- E. Explain the benefits and disadvantages of food processing.
- F. Explain the role of ethics in the production and management of food, fiber (fabric or clothing), and energy sources.
- G. Identify agricultural products (foods) that provide valuable nutrients for a balanced diet.
- J. Identify the careers in food production, processing, and nutrition that are essential for a healthy food supply.



Vocabulary:

- **Stamp:** an identifiable mark that helps shoppers quickly locate products they seek like ones with whole grains. The Whole Grains Council developed three black and yellow stamps to show consumers how much content is whole grain
- **Whole grain:** the seed of a plant that has not been refined and still has all three parts of the grain intact for maximum health benefit, which are bran, endosperm, and germ
- **Swap:** a cooking term, meaning to substitute an ingredient with another in a recipe to improve the nutritional value of a recipe
- **Gluten:** a protein that helps foods like bread and pasta maintain shape and stretchiness through the cooking process. It is often found in whole grains like wheat, barley, and rye. While many people can consume it safely, some cannot tolerate it without negative effects, like individuals with celiac disease or those with gluten allergies and sensitivities. Grain alternatives exist for use in recipes when someone needs to avoid gluten
- **Mill:** a building or machinery used to process grain into finer, smaller forms to make it suitable for baking and cooking applications

Materials Needed:

- Ingredients for the "Basic Muffin Recipe"
 - 1 ½ cups whole wheat flour
 - 1 ½ cups all-purpose flour
 - ½ cup brown sugar
 - 1 ½ teaspoons baking powder
 - ½ teaspoon baking soda
 - ½ teaspoon salt
 - ⅓ cup melted, cooled butter
 - ¼ cup honey
 - 4 large eggs, beaten
- Banana Variation Ingredients:
 - ⅓ cup unsweetened applesauce
 - 6 ripe bananas, mashed
 - ½ teaspoon cinnamon
 - Optional – ½ cup chopped walnuts
- Pumpkin Variation Ingredients
 - 1 (15 ounce) can 100% pure pumpkin puree
 - 1 ½ cup unsweetened applesauce
 - 1 ½ teaspoons vanilla
 - 1 ½ teaspoons cinnamon
 - Optional - ⅓ cup mini chocolate chips
- Strawberry Variation Ingredients
 - 2 cups strawberry preserves
 - 1 ½ cup unsweetened applesauce
 - 1 ½ teaspoons vanilla

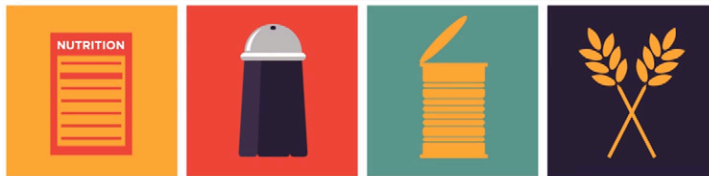


Spot Health Swaps:

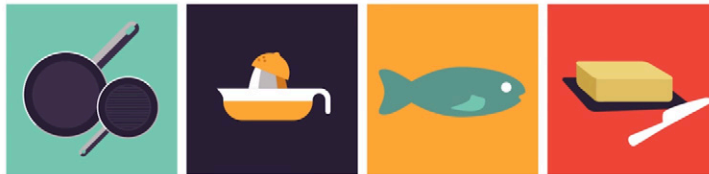
- This next activity is from an American Heart Association video called, "Healthy Recipe Swaps!". View the video screenshots and read along with the narration to learn about "**Healthy Recipe Swaps.**" (pages 5-10)
- Make note of the suggestions for using ingredients like whole grains in place of less healthy options when you cook, also known as swaps!

Healthy Recipe Swaps

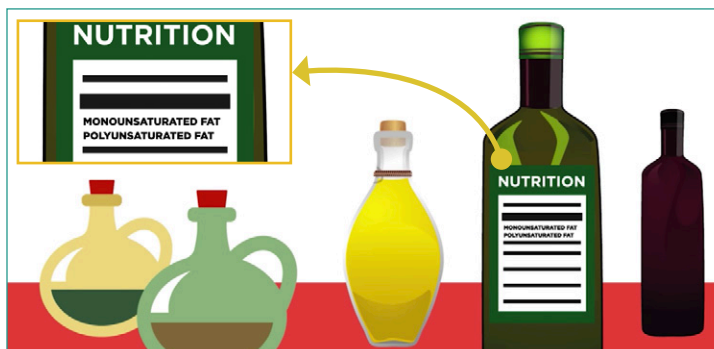
www.youtube.com/watch?v=Onyc0tTogsw



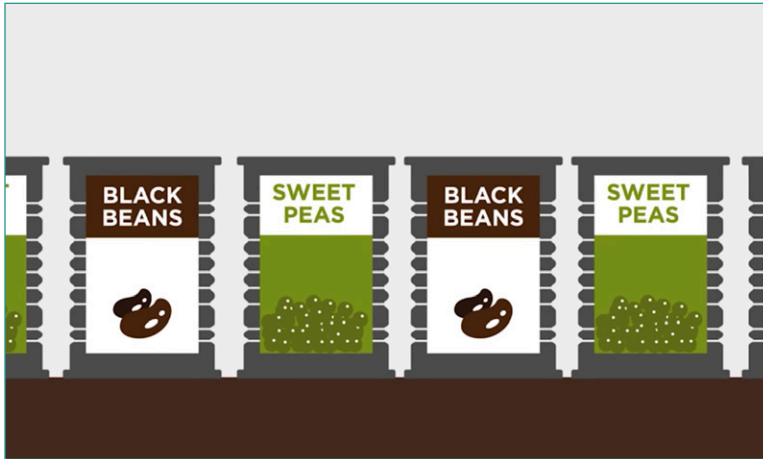
HEALTHY GUIDELINES TO UPDATE YOUR EATING STYLE AND IMPROVE YOUR NUTRITION PROFILE



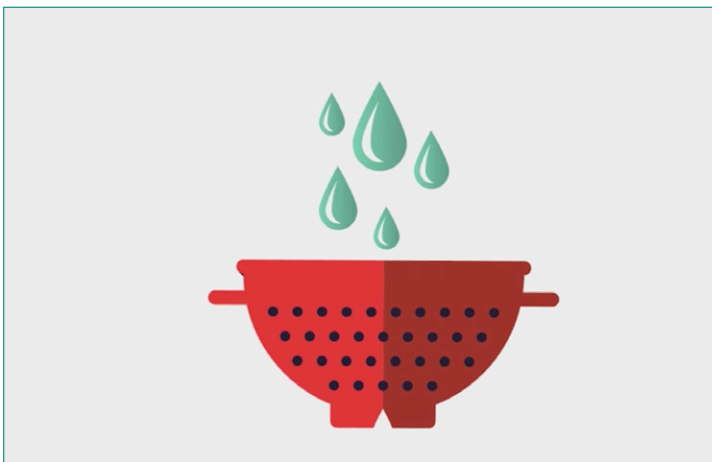
Follow these healthy guidelines to update your eating style and improve your nutrition profile.



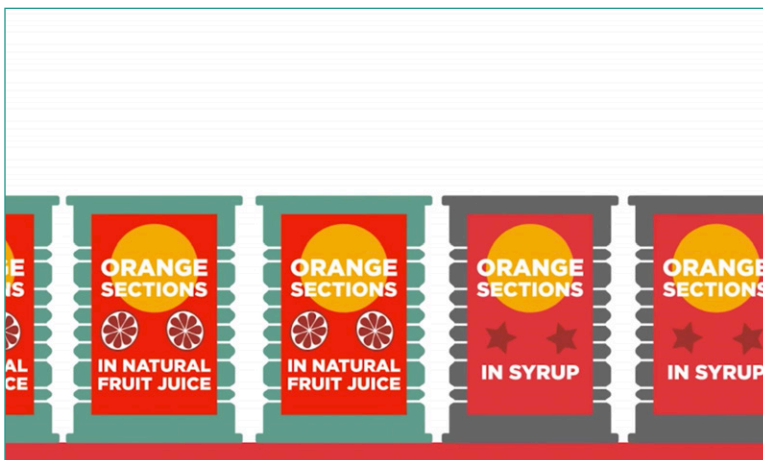
Cut down on saturated and trans fats by choosing non-tropical vegetable oils like monosaturated and polyunsaturated oils.



Buy lower-sodium versions.



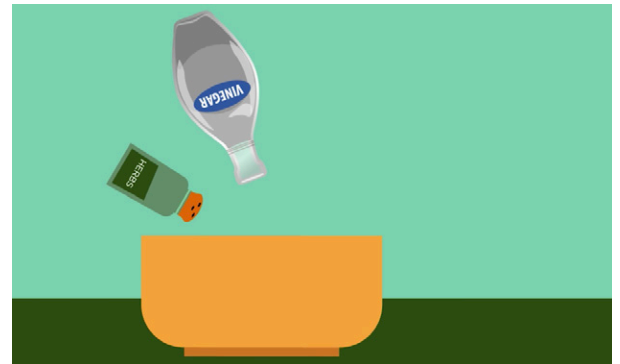
If you can't find lower-sodium, or no-salt-added, rinse the contents in a colander under water to wash away some of the salt.



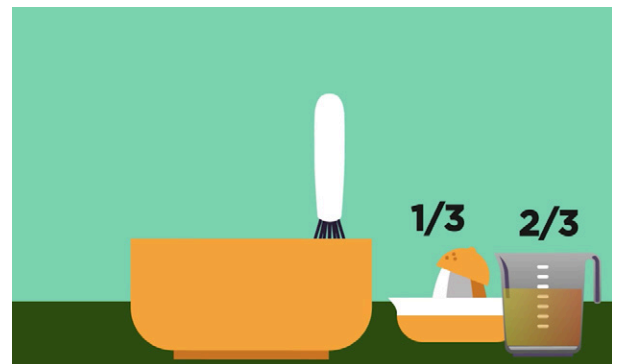
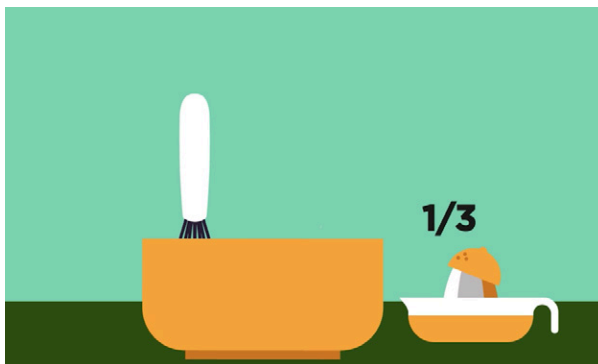
Choose canned fruits packed in juice rather than syrup.



Use nonstick cooking spray instead of greasing bakeware with butter or shortening, and use it in skillet instead of butter for cooking.



Make your own salad dressings by mixing healthier kitchen oils such as olive oil with vinegar and herbs.



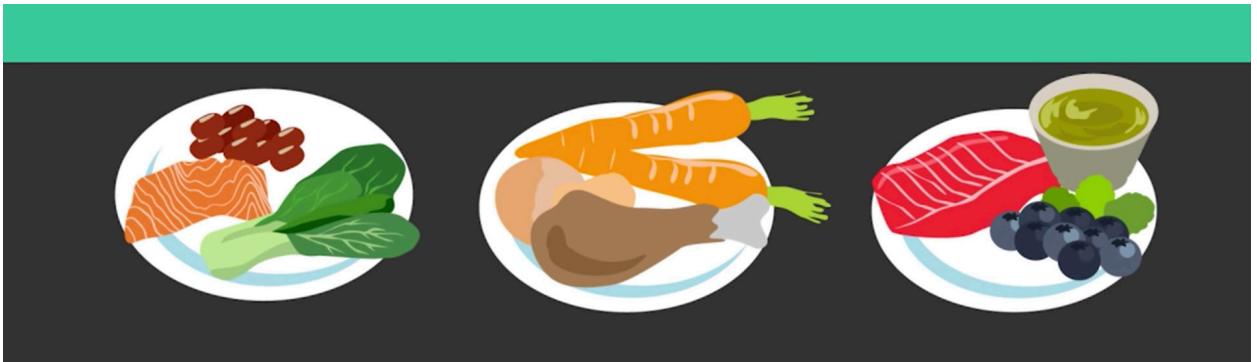
The general rule for a homemade dressing is one-third acid, vinegar, or citrus juice to two-thirds cup of oil.



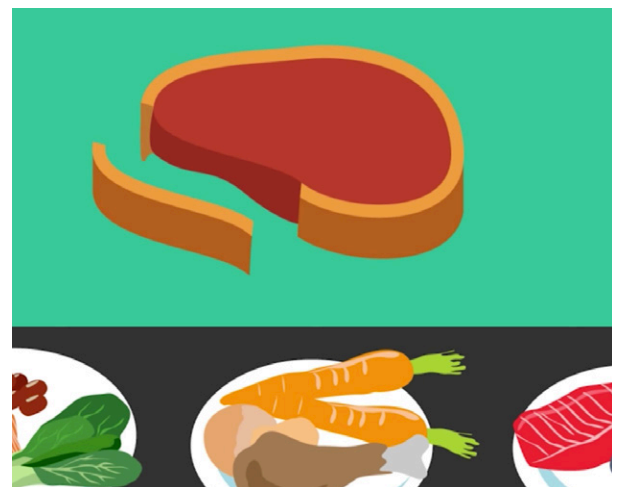
**LOOK FOR WHOLE GRAINS
AND LOWER SODIUM**



Look for whole grains and lower-sodium when you buy things like bread, pasta, crackers, and snacks.



Choose poultry and fish and limit red meat. Always look for leaner pieces and trim away skin and visible fat before cooking.





SIMPLE SWAPS

Finally, here are a few examples of some simple swaps that you can try:



Whole Wheat Flour for White Flour -

For every cup of white flour your recipe calls for, substitute seven-eighths cup of whole wheat.



Unsweetened Applesauce for Oil or Butter -

If your recipe calls for one cup of oil substitute a half cup of unsweetened applesauce and a half cup of oil.



Vanilla for Sugar -

Cutting sugar in half and adding a teaspoon of vanilla as a lot of flavor with significantly fewer calories.



Mashed Bananas for Butter or Oil

1 cup of mashed bananas in place of one cup of butter or oil.

- After you read the narration for each screenshot, think about or discuss with others additional ideas for improving a recipe's total nutrition by swapping ingredients.
 - Can you think of other swaps? Make a list.
 - If you need hints, check out the **Healthy Baking Alternatives** article on pages 11-13 from the University of California, Davis Center for Nutrition in Schools.



Healthy Baking Alternative

<https://cns.ucdavis.edu/news/healthy-baking-alternatives>



Healthy Baking Alternatives November 12, 2019

The holiday season is upon us! Baking can be a fun and interactive family activity to celebrate winter festivities. Enjoy this season with a variety of healthy baked goods!

The *2015-2020 Dietary Guidelines* recommends limiting added sugars and saturated fats to no more than 10% of your total daily calories. Instead of restricting yourself from all baked goods, aim to achieve a healthy eating pattern by allowing yourself to eat them in moderation.



When baking, simple recipe modifications can help reduce the amount of fat and sugar in your favorite holiday dessert and boost its nutritional content. Below are some healthy baking alternatives to try this holiday season:

- **Add a fruit or vegetable.** Add ingredients such as pureed apples and pumpkin, smashed bananas and sweet potatoes, or grated zucchini and carrots. These ingredients can keep your recipes moist and flavorful, while also increasing the nutrients in your sweet treat!
- **Choose heart-healthy swaps.** Substitute butter and margarine for a heart-healthy oil such as canola oil or olive oil. Apple sauce can also be another healthy alternative! Try different substitutes to see which alternative can best replicate the taste and texture of the original recipe.
- **Reduce the amount of sugar.** You can often reduce the amount of sugar in a baking recipe by 25% without any noticeable changes. You can also try switching to other natural sweeteners like dates or applesauce. Be sure to account for differences in quantity, texture, and moisture level when substituting sugar for an alternative in your next recipes!
- **Experiment with new flours.** Whole wheat flour can be an easy substitute to all-purpose white flour. If homemade breads are part of your baking routine this holiday season, try baking with whole wheat flour, or you can even start with an equal mixture of both flours! Almond flour and coconut flour can also be healthier options to swap for as well.

In addition to simple recipe modifications, control portion sizes when incorporating baked goods into your diet. Miniature desserts, such as mini muffins and cheese-cakes, and bite-sized brownies and tarts, can help to ensure you are maintaining a healthy eating pattern and a balance between sweet treats and nutrient-dense foods.

This winter, create a healthier, more nutritious version of your family's favorite holiday treats! Start with small adjustments and changes to your traditional baking recipes for a dessert your whole family will love! Visit the USDA MyPlate website to try out this Cranberry Nut Bread recipe this holiday season!



Bake a Better-for-You Muffin Activity

If you have access to the Internet and a computer you can explore the Seasonal Food Guide website. <https://www.seasonalfoodguide.org>

But what if the type of dish you want to prepare uses produce that is not in-season? We will solve that problem now by baking a better-for-you muffin with frozen or canned produce, as well as healthy ingredients. Muffins baked with whole grain flour and other healthy swaps are a quick and healthy breakfast (and also a great after school snack) that can be paired with a glass of milk.

Activity Directions:

- Select which muffin that you want to bake from the **Basic Muffin Recipe** on page 14.
- You can choose to make any of the variations included in the recipe:
 - Pumpkin chocolate chip
 - Strawberry jam
 - Banana
- Notice that the muffins can be frozen and reheated later.
- Also notice that the recipe uses some healthy swaps referenced in the prior task.
- If you'd like, and with an adult's help, take a picture of your batch and share your photo with us at STEMsationalag@mtsu.edu.



Basic Muffin Recipe

- Ingredients for the "Basic Muffin Recipe"
 - 1 ½ cups whole wheat flour
 - 1 ½ cups all-purpose flour
 - ½ cup brown sugar
 - 1 ½ teaspoons baking powder
 - ½ teaspoon baking soda
 - ½ teaspoon salt
 - ⅓ cup melted, cooled butter
 - ¼ cup honey
 - 4 large eggs, beaten
- Banana Variation Ingredients:
 - ⅓ cup unsweetened applesauce
 - 6 ripe bananas, mashed
 - ½ teaspoon cinnamon
 - Optional – ½ cup chopped walnuts
- Pumpkin Variation Ingredients
 - 1 (15 ounce) can 100% pure pumpkin puree
 - 1 ½ cup unsweetened applesauce
 - 1 ½ teaspoons vanilla
 - 1 ½ teaspoons cinnamon
 - Optional - ⅓ cup mini chocolate chips
- Strawberry Variation Ingredients
 - 2 cups strawberry preserves
 - 1 ½ cup unsweetened applesauce
 - 1 ½ teaspoons vanilla



Optional Activity: Try Your Luck in the "Great Grains Game Show"

In this activity, learners will dramatize a fictitious game show centered around whole grain trivia.

Directions for a classroom environment

- A group of students may perform the skit for their peer audience.
- Props and costumes welcome! Have fun with it!
- Decide who will play the following roles in the game show:
 - Host
 - Contestant 1
 - Contestant 2
 - (Optional) Additional Contestants
 - Audience members
- All the roles, except the audience members, will read from the **"The Great Grains Game Show Script"** on pages 16-17.
- Only the host should have access to the **"Answer Key to Great Grains Game Show"** on pages 18-19.

Directions for individual learners

- One individual may play all parts with varied expression to do so or ask a friend or family member to play with you!
- If playing by yourself, pause to see if they can guess correctly before consulting the **"Answer Key to Great Grains Game Show"** on pages 18-19.
- Props and costumes welcome! Have fun with it!



The Great Grains Game Show

The Great Grains Game Show – Episode 1

Host: Folks, welcome to the very first episode of the “Great Grains Game Show”! I’m your host Barley Whole-Wheat Farro. Today, we have some whip smart contestants competing for their chance at the prize. I’ll allow them to introduce themselves.

Contestant 1 (Name)

Contestant 2 (Name)

Any Additional Contestants (Name)

Host: Thank you for those, um, interesting introductions. Audience, are we ready to begin? [Audience cheers wildly.] Now, folks, this is a trivia-style game, so listen carefully and be first to raise your hand for the chance to answer. The contestant with the most correct guesses wins an all-expenses-paid trip to the most paradise-like place this side of paradise: Paradise Island.

[Audience cheers wildly again.]

[Host proceeds to facilitate the following questions, allowing contestants who raise a hand first to answer, proceeding to the next raised hand for any incorrect answers. Correct answers are found on page 2 of this document. Score may be kept.]

Question 1:

What is a grain?

- A. A nut
- B. A vegetable
- C. A seed
- D. A lean protein

Question 2:

True or false?

Refined grains are higher in nutritional value than whole ones?



Question 3:

How many parts does a grain contain? Bonus point if you can name any!

- A. 2
- B. 3
- C. 4
- D. 5

Question 4:

What is the main reason the USDA includes grains as an important part of meals?

- A. They stimulate our hair, skin, and nails to shine and grow.
- B. They aid in perspiration and our bodies' ability to cool down.
- C. They build healthy bones, teeth, and cartilage.
- D. They aid digestion, fuel our energy, and reduce the risk of disease.

Question 5:

True or False? Gluten is found in some, but not all, whole grains.

Well, folks, that's all for today's game playing. Join us again tomorrow as we quiz our contestants on everything amaranth. And, once again, big congratulations to our winner!



Answer Key to The Great Grains Game Show Word Doc

Answer Key to Great Grains Game Show

Host Script

Question 1: What is a grain?

- A. A nut
- B. A vegetable
- C. A seed
- D. A lean protein

Answer: C — A grain is a seed harvested from a plant. The seed is sometimes eaten itself like corn or rice. Other times, it is used to create a grain-based food like pasta or bread.

Question 2: True or false? Refined grains are higher in nutritional value than whole ones?

Answer: False — Refined grains lose vitamins, minerals, fiber, and other healthy elements because 1 or more of the grain's parts are removed. As the Whole Grain Council puts it, "Refining a grain removes about a quarter of the protein in a grain, and half to two thirds or more of a score of nutrients, leaving the grain a mere shadow of its original self."

Question 3: How many parts does a grain contain? Bonus point if you can name any!

- A. 2
- B. 3
- C. 4
- D. 5

Answer: B — The three parts are bran, endosperm, and germ. Refining typically leaves only the endosperm, which provides starchy carbohydrates, proteins, and small amounts of vitamins and minerals. The bran offers important antioxidants, B vitamins and fiber. The germ has many B vitamins, some protein, minerals, and healthy fats.



Question 4: What is the main reason the USDA includes grains as an important part of meals?

- A. They stimulate our hair, skin, and nails to shine and grow.
- B. They aid in perspiration and our bodies' ability to cool down.
- C. They build healthy bones, teeth, and cartilage.
- D. They aid digestion, fuel our energy, and reduce the risk of disease.

Answer: D — These are all important benefits gained when we dedicate about 1/4 of our plate to healthy grains at mealtime, in addition to lean protein, fruits, vegetables, and dairy.

Question 5: True or False? Gluten is found in some, but not all, whole grains.

Answer: True — Gluten is found in mostly barley, rye, and wheat. Contrary to popular belief though, not everyone has to avoid it. The gluten protein helps the cooking and baking process by maintaining a sticky, stretchy quality in foods like doughs and pastas. Still, some individuals are sensitive or highly allergic to gluten. They need to seek out gluten-free grains as alternatives, especially if they have celiac disease.



The Whole Grain Stamp Activity

Making "half your grains whole" is a popular saying in the nutrition field because it's easy to remember and exercise. In this activity, you will get an opportunity to increase the amount of whole grains in your diet!

First, read the article, **Whole Grain Stamp**, (page 21) from the Whole Grains Council website to learn more about how to find the stamp on food products to help you make healthy food choices.

Whole Grain Stamp

<https://wholegrainscouncil.org/whole-grain-stamp>

OLDWAYS
WHOLE
GRAINS
COUNCIL

WHOLE GRAINS 101 | WHOLE GRAIN STAMP | FIND WHOLE GRAINS | RECIPES | RESOURCES | GET INVOLVED

100%
WHOLE GRAIN
20g or more
per serving
100% OF THE GRAIN
IS WHOLE GRAIN
WholeGrainsCouncil.org

Home

WHOLE GRAIN STAMP

Consumers searching the grocery aisles for authentic whole grain foods now have an effective "search tool" - the Whole Grain Stamp. Making it easy for shoppers to spot whole grain foods helps close the Whole Grains Gap and promotes a goal long sought by nutrition and medical experts. That's why the Stamp is on more than 13,000 products in 65 countries!



AN AID FOR BUSY SHOPPERS

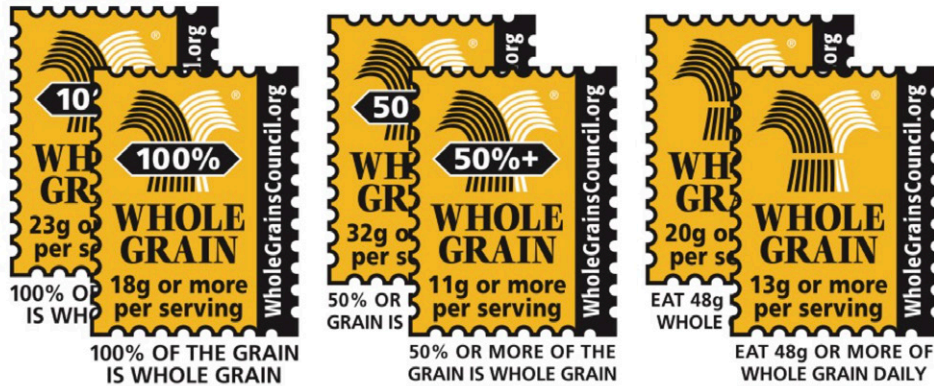
The Whole Grain Stamp features a stylized sheaf of grain on a golden-yellow background with a bold black border. Its eye-catching design makes the Whole Grain Stamp easy to spot on food packages. Busy shoppers welcome this easy shortcut for finding products offering at least a half serving of whole grains. [Click here to download a narrated PowerPoint explaining how and why we developed the Whole Grain Stamp.](#)

100% STAMP, 50%+ STAMP OR BASIC STAMP?

There are three different varieties of the Whole Grain Stamp: the 100% Stamp, the 50%+ Stamp, and the Basic Stamp.

- If a product bears the **100% Stamp** (left image below), then *all its grain ingredients are whole grain*. There is a minimum requirement of 16g (16 grams) – a full serving – of whole grain per labeled serving, for products using the 100% Stamp.
- If a product bears the **50%+ Stamp** (middle image), then *at least half of its grain ingredients are whole grain*. There is a minimum requirement of 8g (8 grams) – a half serving – of whole grain per labeled serving, for products using the 50%+ Stamp. The 50%+ Stamp was added to the Whole Grain Stamp family in January of 2017, and will begin appearing on products in the spring and summer of 2017.
- If a product bears the **Basic Stamp** (right image), it contains at least 8g (8 grams) – a half serving – of whole grain, but may contain more refined grain than whole.

Each Stamp also shows how many grams of whole grain ingredients are in a serving of the product. When you look at Stamped products on your grocery shelves you'll see a wide range of gram amounts, reflecting the whole grain content of a serving of that specific product. If a product contains large amounts of whole grain (23g, 37g, 41g, etc.) but also contains extra bran, germ, or refined flour, it will use the 50%+ Stamp or the Basic Stamp (and not the 100% Stamp).



THE 100% STAMP	THE 50%+ STAMP	THE BASIC STAMP
For products where ALL of the grain is whole grain.	For products where at least 50% of the grain is whole grain.	For products that contain a significant amount of whole grain, but which contain primarily refined grain.*
Minimum requirement: 16g (16 grams) whole grain per serving. (a full serving of whole grain)	Minimum requirement: 8g (8 grams) whole grain per serving. (one half serving of whole grain)	Minimum requirement: 8g (8 grams) whole grain per serving. (one half serving of whole grain)

** From 2005 through 2016, before the introduction of the 50%+ Stamp, Basic Stamp products may have contained up to 99% whole grain. Until all packaging is updated, you may see products bearing the Basic Stamp with more than 50% of their grain as whole grain!*

+ A few examples. Let's play "name that stamp"

+ You Do the Math... It's Simple

+ Original Whole Grain Stamps – an historic note



After reading the article, think about how you can replace refined grain products with whole grain products in your typical daily meals and snacks. Here are two ways the Whole Grains Council advises using the stamp to reach approximately three or more daily whole grain servings:

1. Eat three whole grain food products labeled "100% Whole Grain" OR
2. Eat six products bearing ANY Whole Grain Stamp

Activity:

Option 1:

- Look in your pantry at home for products with the Whole Grain Stamp on them. Or, next time you go to the grocery store, look for foods with the Whole Grain Stamp. Examples of food with grains we commonly eat are breads, cereals, snack crackers, pastas, and rice. You might be surprised that certain brands you like don't have the stamp (and that some do)!

Option 2:

- If you have access to the Internet, search "whole grain". Many products have multiple pictures to help you locate the Whole Grain Stamp.
 - Tip: Try typing "whole grain" in your search to begin.
Many products have multiple pictures to help you locate the Whole Grain Stamp.
- Keep looking until you find 3-6 products bearing the stamp. These should be ones you would enjoy eating to more easily achieve a whole grain-rich lifestyle.
- Write them down so that your family can find them next time you go grocery shopping.



Post-Assessment

Answer the questions and complete Activity 1 (page 23) & Activity 2 (page 35) .

Reflect on what you learned in the unit.

Remember the whole grain stamps at the beginning?

1. What does the whole grain stamp tell you?
2. Is bread good for you?

Activity Part 1: Explore a Career as a Bread Baker

Read about the Rose family and their bread baking business (pages 24-31), in this article, **All Rise**. Be sure to read the paragraphs underneath each photo in the article, to learn more about this bread-baking family of six. You will learn why they chose bread as their business and which jobs the children help with around the bake shop.

Then, read pages 32-34, **Team Rose Bread**. Here, you will learn why they use ancient grains from local mills as flour for their breads. Check out the FAQ section (page 34) and read the response to the question: "**Is bread good for me?**"



All rise

<https://southparkmagazine.com/all-rise/>

February 1, 2021



The Charlotte couple behind Team Rose Bread bakes core values into naturally leavened, artisan loaves. by Michael J. Solender • photographs by Peter Taylor

A few blocks behind a busy stretch of Sharon Road, a midcentury modern ranch surrounded by century-old pin oaks sits on an oversized lot, one of only two homes framing the stubby cul-de-sac. Out front, the gnarled arm of a sprawling oak anchors a long rope swing that holds the promise of swooping, semicircular rides for the home's youngest inhabitants and their tiny pals. Bicycles, scooters and other stray toys lay scattered across an otherwise well-manicured lawn.

Since September, on each Tuesday and Friday afternoon, a steady flow of neighbors, friends of friends and cheery strangers amble down the long driveway, their visits dually rewarded by engaging conversation with homeowners Douglas and Kaitlin Rose and a takeaway purchase of fresh-baked, artisanal whole-grain breads.

The unique loaves are so flavorful that internationally recognized bread guru Peter Reinhart, author of the James Beard Award-winning *The Bread Baker's Apprentice*, deems the Roses' sourdough country loaf — 25% whole grain with sprouted wheat



and rye — “among the best sourdough bread in the city.” In just a few short months, the self-taught bakers have divined a nearly magical alchemist’s hand for the notoriously finicky and unforgiving craft.





An ancient tradition

Each week, the couple turns out nearly 250 crusty loaves from their tiny bread shop. Last summer, with the help of a friend, the Roses reconfigured a 450-square-foot carport in the home where they've lived since 2011 into a working bake kitchen. They market the bread, which sells for \$8 to \$16 a loaf, exclusively through Instagram (@teamrosebread) and word of mouth. Twice a month, the family of six sells loaves at Matthews Community Farmers' Market, and, occasionally, they host Saturday pop-up events where they sell specialty baked goods — cinnamon rolls, sticky buns and vegan doughnuts are among their recent offerings.

Challah, Struan, Abruzzi rye, spelt and sourdough bagels are just a few of the internally developed recipes that emerge from Team Rose Bread's diminutive 12-loaf capacity oven. Eschewing most commercial baking techniques, the Roses lean heavily on traditional processes and ingredients such as ancient grains, used over generations by bakers across the globe. All their breads are naturally leavened — here, the use of commercial yeast is frowned upon. At any given time, the couple has three or more versions of levain, a natural leavening starter made with flour, water and wild yeast, growing under refrigeration.





“The pull for us toward the avenue of bread is simple,” says Douglas, 38. “The connection to ancient grains, and the story of what bread used to be and what it should be — a life-sustaining, nourishing form of food — offers a sense of rootedness and connection.”

Connection is a cornerstone value for the Roses, who met when they were college students — Douglas at Davidson College and Kaitlin at Duke University, where she played lacrosse. The concept of rootedness helped drive the decision to create a home-based business, placing their young family at the center of a journey that’s just beginning to unfold.

Like many young couples with small children, the 30-somethings became increasingly introspective during Covid’s earliest days and looked to capitalize on extra time at home, more deeply enjoy the closeness of their children, and fulfill a longtime dream of working together. Douglas, an entrepreneur who grew up in New York City, was winding down an online men’s accessories and luxury-goods business, while Kaitlin, a Maryland native, was homeschooling their four children.

Last spring’s Covid lockdown accelerated their decision to take the plunge and start Team Rose Bread. It is a business in which they can collaborate, involve the children, serve the community, and nourish their love for learning, all while preparing natural and healthy food for themselves and their neighbors.

“We’ve always dreamed of doing some sort of business together,” says Kaitlin, 36. “Before the pandemic I’d been baking sourdough bread for several years with a dear friend of mine. We were baking six or so loaves at a time, and eventually I started selling a loaf here and a loaf there to friends. The seed for a business was planted probably a year or so before we made the decision to do this full time. We began construction on the bread shop on June 27, our anniversary.”



Family affair

While the couple held some concerns regarding the venture, its economic viability and a shifting family dynamic, the excitement surrounding the experience of learning a traditional trade, developing community relationships and engaging the entire family aligned in a way that felt right.

“For us, we just have a desire and want to be a formative influence for [our kids],” Douglas says. “Our youngest is 4 and our oldest is 11. We see this as a great opportunity to be around our kids as much as possible and be fully present.”



A visit to their bread shop — the couple avoids the term “bakery” as they don’t focus on pastries — typically finds each of the children actively contributing to the operation. Four-year-old Robinson loves to run the vacuum cleaner, tracking down stray crumbs. Six-year-old Samantha shows off her artistic side in elegantly braiding loaves of challah. Noa, 11, likes placing Team Rose Bread stickers neatly on each loaf bag, and Benzion, 8, is a “fulfillment” maven manning the Dutch door, greeting customers with their orders and making change.



“Our view as a couple shapes every decision we make in life,” Kaitlin says. “Doug and I have just gotten to a place [of] evaluating what is important to us. I like him being here, and we love working together. The timing just made sense.”

Though Kaitlin had experience as a home-based bread enthusiast, it’s Douglas’ zeal for bread history, culture and technique that fuels the “bread-lab” aspect and daily quest for knowledge of the craft. Early in the journey, Douglas heard Reinhart, a baking instructor at Johnson & Wales University, speaking about artisan bread on a radio show and reached out directly to invite him to dinner and “pick his brain.”

“He politely turned me down,” Douglas says. “I think he gets many requests for his time and is understandably cautious.” Undeterred, Douglas went back to Reinhart with an offer he couldn’t refuse: He’d noted Reinhart’s social-media accounts could benefit from updating and offered help in exchange for baking advice. The friendship bloomed.





Deep study

“Small-scale garage and cottage bakeries represent an increasing national trend in the artisan-bread arena,” Reinhart says. “Douglas and Kait approach the craft embracing tradition and heritage in ways that come through in the flavor and quality of their bread.”

As an homage to Reinhart, the couple developed “Peter’s Struan,” a sturdy harvest bread that is one of Reinhart’s favorites, based on one of his classic recipes. The multigrain loaf incorporates cooked rice, polenta, oats and honey and is well-suited for toasting and sandwiches.

Research led Douglas to reach out to heavyweights across the national artisan-bread community. Connecting with regional grain expert, miller and foodways historian Glenn Roberts, founder of South Carolina’s Anson Mills, has proven particularly beneficial. The grower and miller of organic heirloom grains serves as a primary flour source and recipe inspiration for Team Rose.





“The best talent is usually driven by an artistic motive,” says Roberts, who has visited Team Rose’s at-home bake shop. “Doug and Kait are more interested in creating art first, profit second and taking care of their consumers somewhere in that mix, too. What drives them is the creative urge [of baking] as an artist endeavor. It’s the art of flavor that has meaning for them. Flavor equals nutrition — and that’s important to them.”

Through visits with Roberts at Anson Mills, the Roses developed a deeper understanding of characteristics such as “terroir,” or environmental factors of the soil and conditions where the grain is grown and under which it is milled. After learning about the virtues of a rare Scots Bere barley from Roberts, Team Rose created a toasted oat porridge Scots Bere chocolate sourdough. The vegan loaves were a hit with a lucky few taste testers and now appear on Team Rose Bread’s rotating lineup.

For the Roses, the personal relationships developed over the last few months have been as important and rewarding as creating flavorful and nutritional bread.

“People just show up,” Kaitlin says. “They find us somehow, but I love that aspect. It’s a face-to-face exchange we enjoy. People — especially right now — they want to see others and have human interaction with someone outside of their home.”

Scale and capacity are never far from the Roses’ thoughts, as expansion beyond their home bread shop is not in the plans.

“We want to have sustainable income and provide for the family,” Douglas says. “But we don’t want to be baking every day and delivering bread to a commercial retailer where we don’t interact with our customer. It’s just not our plan.” Purchasing a larger oven to produce loaves more efficiently is in the plans, however, and the Roses also see an opportunity with UrbanPromise Charlotte. The local nonprofit provides spiritual, academic and social development for youth through camps and after-school programs. The Roses donate 10 loaves weekly to the organization.

For the Roses, baking bread has just begun to open a world of possibilities. SP



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ORDER BREAD



WE'RE TEAM ROSE

Douglas grew up in NYC two floors above Hot and Crusty, a neighborhood bakery. Bread, bagels, English muffins and crumb cake were foundational elements of his childhood.

Kaitlin is an artist who began making sourdough bread in 2017 with her friend Nina. Like everything else she creates, her bread captures just a small taste of her zest for life.

A normal day in the Rose house involves getting a little too excited about what we're having for dinner, deciding together which naturally leavened bread to pair it with and then collaborating to bring it to life. If you hear yelling coming from our table, don't be alarmed, it's just how we express excitement over a bite of perfectly buttered bread.

All six of us can't wait for you to try Team Rose Bread

Doug, Kait, Noa, Benz, Sam, Robby



FROM CARPORT TO BREAD SHOP

Are we a little crazy? Maybe.

But if your business partner is wild yeast, I guess you have to be a little crazy.
Here's where our bread shop dreams began.





FAQs

Is bread good for me?

Yes and No. It depends on the bread you eat. Team Rose Breads are naturally leavened with wild yeast and made with organic bread flour and ancient grains.

Most bread is commercially yeasted with rapid fermentation and made with commercial wheat, which is a hybridized modern wheat. This type of wheat is dwarfed for efficiency and monocropped in big fields with no diversity. Breads made in this style cause blood sugar to spike, offer very little nutrients and are hard for the gut to digest because of insufficient fermentation.

Why did you start a cottage bakery in your house, are you crazy?

The simple answer to this question is, Yes...but if you're business partner is wild yeast, I guess you have to be a little crazy.

We built our cottage bakery for two main reasons - to foster connection within our home and build community with our neighbors.

Have you always wanted to be bakers?

Doug grew up dreaming of playing for the Yankees and Kaitlin dreamed of one day being a marine biologist.

Why team rose bread?

In order to make this Bread Shop thrive, it's going to take all six of us collaborating / working together / sharing responsibility and having fun together. And because we love the idea of a team with room for you. We want everyone to feel welcome at Team Rose Bread.

How does the subscription work?

First determine if you want to pick up your bread or have it delivered -then sign up via our website for a one month or three month subscription and pick the breads you want each week. Simple as that.

Can I pick the bread up?

Yes. We love it when customers pop by to pick up their bread!

Do you deliver?

Yes! Our initial delivery radius is 2.5 miles and we look forward to expanding that soon!

Do you sell in stores work with wholesalers?

Our first priority is serving our neighbors. If you are a retailer and would like to discuss partnering, we would love to discuss.



Activity Part 2: Create Your Own Bread Baking Business

Imagine you are opening a bread baking business. Answer the following questions to develop your business:

1. What products would you make, and why?
2. Which ancient grains would you use?
3. What would your business look like?
(You can include a logo, bakery design, etc. Be creative!)
4. Create a name for your business and design a menu with your products.
Make sure to include an ingredient list. Write a description for each product and include the vitamins that are in each ancient grain.

To present this information, choose one of the three options below:

- Option 1: Type it up in a short paper
- Option 2: Create a poster with poster board
- Option 3: Make a PowerPoint presentation