Why Bake?

Sharon Davis & Charlene Patton
Family & Consumer Sciences Ed.
Home Baking Association
HomeBaking.org
Food is fabulous

Food should be assured, anticipated, appreciated, shared among family, friends, community. More than just convenient; NOT just a stress relief.

Good food is essential to health, wealth, relationships.

Boys and Girls Clubs of Manhattan Portable Kitchens, HomeBaking.org
Good food is for everyone.

“To be a good cook means the economy of your great-great-grandmothers and the science of modern chemists. It means much tasting and no wasting. It means English thoroughness, French art and Arabian hospitality. It means that you are to see that everyone has something nice to eat.”

Quote: John Ruskin, 1900 English art critic, social commentator, philanthropist.

From a 1906 Cookbook by Annie R. Gregory.
Humans Have Always Cooked

“The preparing, cooking, and sociable eating of food are so central to the human experience that the culinary arts may well be what made us human in the first place… There is no record anywhere of any people who have lived without cooking.”

Motivations for baking

- Still a treat society
- Ingredient control a growing consumer concern (62% U.S., 83% in UK)
- Saving money, resources
- 33% would bake from scratch “If I knew how!”

Reasons for home baking, August 2011

- Treat me, family or friends: 71.8%
- I control what goes in my food: 59.6%
- Way to keep up family traditions: 48.8%
- Save money: 43.3%
- It is a part of the way I live: 41.5%
- Show off my baking skills: 38.7%
- I would bake more from scratch if I knew how: 33.1%

Source: Mintel
Base: 1,920 internet users aged 18+ who bake or are primary household shoppers
Why People are not baking

- “Takes too much time” could come down with more convenience products, but more likely will fall as the economic need continues (only 19% say this in the UK)
- Viewed as “shouldn’t eat” – is it taste? Health? Convenience?

Reasons for not baking, August 2011

- Takes too much time: 38.2%
- Don't eat many baked goods: 24.4%
- Someone else does the baking: 18.4%
- Never learned how to bake: 15.7%
- Ready to eat products are better: 15.6%
- Too expensive: 9.7%

Source: Mintel, HBA, October 2011.
Base: 1,121 internet users aged 18+ who bake less than weekly
We bake to...

- Build traditions, across ages
- Contribute to family; build true esteem
- Fun! Peers, family, community
- Apply baking and food STEM
- Explore art, history, cultures
- Control $$$, resources,
- Substitute ingredients
- ↓ sodium, ↑ potassium, magnesium, calcium, iron
- ↑ Whole grains, antioxidants
- ↑ Fruits, Veggies
- Functional Literacy
- Develop and apply life skills

**Confetti Cornbread**

Ingredients:
- 1 cup white, yellow or whole grain cornmeal
- 1 cup all-purpose flour
- 1 or 2 tablespoons sugar, optional
- 2 ½ teaspoons baking powder
- ½ teaspoon salt
- 1 egg
- 1 cup low-fat milk or skim milk
- 3 tablespoons melted butter or vegetable oil
- 1 cup shredded Cheddar cheese or reduced fat cheese
- ¼ cup chopped green onions
- ¼ cup chopped green, red or yellow peppers

Preparation Time: 10 minutes
Baking Time: 25 to 30 minutes
Makes: 12 squares or wedges

Directions:
1. Preheat oven to 425 °F.
2. Grease bottom and sides of 9-inch square or round baking pan.
3. Combine cornmeal, flour, sugar, baking powder and salt in medium mixing bowl.
4. Beat egg with fork or whisk in separate small mixing bowl. Add milk and melted butter, beating well.
5. Add egg mixture to dry ingredients; mix only until dry ingredients are combined.
6. Stir in cheese, onions and peppers. Do not over mix, the batter will not be smooth. Pour batter into greased pan.
7. Bake 25 to 30 minutes until golden brown and wooden pick inserted in center comes out clean.

Option: Pour batter into greased muffin cups. Bake 18 to 20 minutes. Makes 12 muffins.

Nutrition Facts (1 serving/66g)

Calories: 154, Protein: 6g, Carbohydrates: 18g, Dietary Fiber: 1g, Fat: 7g, Saturated Fat: 3g, Mono Fat: 1g, Cholesterol: 36mg, Calcium: 120mg, Potassium: 101mg, Sodium: 313mg

Fun Fact:
Corn is a grain and staple crop of ancient cultures in the Americas cultivated as early as 300 B.C.

Vocabulary:
Cornmeal: dried yellow, blue or white corn kernels ground into fine, medium or coarse meal. Cornmeal may be degeminated or wholegrain.

Beginning bakers can use a cornbread baking mix and learn measuring, mixing and portioning skills.
Baking builds
20+ Family & Consumers Sciences & Career & Tech
STEM + Art Core Outcomes

- Career, Community and Family Connections Standards 1.2; 1.3
- Consumer and Family Resources Standards 2.1; 2.2; 2.3; 2.4; 2.5
- Early Childhood
- Family Standard 6.2
- Food Production and Services Standards 8.1; 8.2; 8.7
- Human Development Standards 12.2; 12.3
- Interpersonal Relationships Standards 13.3; 13.5; 13.6
- Nutrition and Wellness Standards 14.1 through 14.5
Does baking make us overweight?

Conventional wisdom rules: “There are no bad foods…only bad DIETS.”
- Famous AND everyday people manage “calories in, calories out” to control weight.
- Oprah: “I love bread. I’ve eaten bread ‘every single day’ on her Weight Watchers diet and have still lost 26 pounds.” USA Today, 1/26/16
Compare Wheat Flour Consumption & Rise in Obesity?

U.S. Per Capita Flour Consumption

Source: US Census Bureau and CDC

Check out: Six Things EVERYONE Should Know about Wheat. Diet Tool Kit. Wheatfoods.org
Use *research-based* Dietary Guidelines

Consumers confused re enriched and whole wheat grains in a healthful diet...

**2015 Guidelines:**

1. Focus on “eating patterns” more than individual nutrients
2. 6 servings, 1 oz. each *(add more servings if more active)*
3. Make half (3) servings whole grain *(48g/day)* daily

Grain food teaching resources:
www.wheatfoods.org
www.wholegrainscouncil.org

Examine eating patterns...
Combat “portion distortion”

“It’s too many **calories** not the carbs.“
Other countries who eat diets rich in carbohydrates...
are not fat.

➡️ We simply eat too much, too large a portion.

Take the Portion Distortion Quizzes
Why make food prep part of *active* lifestyle?

Center for Disease Control study reports

- 53% of a person’s health is related to lifestyle
- 10% is based on the quality of medical care
- 19% is from the environment
- 18% is hereditary

Health Update. April 2000.
Better Homes & Gardens magazine, p. 250
Bottom line: It’s about Maslow.

Baking and cooking skills will help achieve each level of Maslow’s Hierarchy of Needs. Achieve levels, beginning at bottom to be “whole.”

Source: http://www.ruralhealth.utas.edu.au/comm-ead/leadership/Maslow-Diagram.htm
Why Teach Youth to Cook and Bake?

“Research consistently shows that integrating nutrition and food education into the larger curriculum and providing children with hands-on cooking experiences changes what they are willing to eat.”

More studies …

“Studies have shown that cooking skills lead to increased cooking frequency, improved knowledge, preferences, and self-efficacy toward and interest in cooking, and decreased food costs.”

Cooking Classes Outperform Cooking Demonstrations for College Sophomores.

Levy, Joshua, MS; Auld, Garry, PhD. RD.

Doctors want food skill educators

Many children have never seen their parents produce a meal “speed or scratch”

- Need school-based classes to demystify the process
- Emphasize simple, inexpensive, speed scratch
- Children could teach parents, contribute resources, boost self-confidence/esteem
- ‘Tweens/Teen’s diets improve when help prepare meals

“If children are raised to feel uncomfortable in the kitchen, they will be at a disadvantage for life.”

JOURNAL of the AMERICAN MEDICAL ASSOCIATION. 2010.
Lichtenstein, A; Ludwig, D. 303(21):2109
Why parent/child culinary skills education?

- Can prevent childhood obesity
- When used to prepare meals at home, increases intake of whole grain, fruits, dairy, fiber, folate, Vitamin A and calcium
- Unique opp for experiential learning (and comfort with) math, sciences, literacy
- Fewer cooking skills=low home availability and accessibility of nutrient dense foods
- Direct, repeated experiences impact preference and acceptance

*A Call for Culinary Skills Education in Childhood Obesity-Prevention Interventions.*
Nelson, s.; Corbin, M. PhD; Nickols Richardson, PhD, RD.
Journal of the Academy of Nutrition &Dietetics.
August 2013
Vol 113: 8; 1031-1036.
Home Food Matters

Build **family assets** most needed for children to succeed in school.

Families currently rank lowest:
• Shared activities
• Connecting to community

Source: Search Institute

Advocate...Bake...Cook...DO simple family meals at home 5 times a week. See why and how at thefamilydinnerproject.org
Plan, Prepare, Share at http://www.homebaking.org/fccla.html
Do consumer math.

“I don’t cook” lifestyles can add 10 lbs. a year.
- DIY cooking and baking ARE part of an *active* lifestyle.
- Home cooks can better control fat, calories, portion size…

**Calculations:**

30 days in a month, 365 days in a year

X \( \frac{100}{100} \) calories extra burn per day when you prepare food

36,500 extra calories (equals 10 pounds gained a year)

*Cooking Light* magazine: Calories burned every 30-40 minutes of cooking, serving, cleaning up = 75 to 125

*3,500 calories = 1 pound added weight*
Skills build TRUE self-esteem.

Young people prefer to make a REAL difference—

When they help make

- family meals and traditions happen,
- save money and resources,

....they make a real difference.

“I am always surprised when my students have never eaten homemade food – bread, cookies, pies, cakes, pizza – or even realized that THEY could make something homemade themselves. I love to see their confidence grow with each recipe.”

Susie Barber, Culinary Arts Teacher- Mariana H.S., Mariana, FL
DIY Skills Add Up

IF family of 4, eats “Ready-to-eat” 4 times per week...do the calculations...

$32.00 “ready-to-eat” meal for 4

-$12.00 cost if were home-prepared

$20.00 \textit{saved} per meal

X 208 meals per year eaten out

$ 4,160 per year (or more!)

X 15 years

$ 62,400 saved dollars
“To be honest, your best value is to eat before you leave home.”
Involve adolescents in food prep

“Dietetics professionals should encourage parents to involve their adolescents in food-related tasks to help them develop the proficiencies they need as young adults to maintain a healthful diet.”

DIY Pizza

Once a week, Do-It-Yourselves

View how!
DIY Baking Channel
www.homebaking.org
www.breadworld.com
www.clabbergirl.com
www.kingarthurflour.com
www.redstaryeast.com

INFOGRAPHIC BY
Fleischmann's Yeast,
2016.
At: HomeBaking.org
More DIY Bake/Cook to Control Ingredients

- Consumers value “clean label” (ingredient list contains ingredients you know) – See more evolving food values below.
- Home made IS… “clean label”--simply *read the recipe* to see what’s in the food you’re making.
- Choose healthful ingredients
- Apply ServSafe or FightBAC at home!

Source: Deloitte.com/us/Food2020
Food Marketing Institute and
Grocery Manufacturers Association
*Food Business News, Sosland Publishing,*
by Keith Nunes
1/25/2016. The U.S. Consumer Has Changed
Bake with a variety of Whole and Enriched Grains. Both are nutritious and important to include in a healthful diet.

Grain Teaching Resources

- Power points, downloadable lessons and order A Baker’s Dozen Labs; 50, 5 Minute Baking Activities Homebaking.org
- Flour 101 and Wheat 101, texaswheat.org
- Six Classes of Wheat, Grains of Truth Fact Sheets, Wheatfoods.org
- Guides and lessons, wholegrainscouncil.org
Americans and whole grains

Learn more:
www.wholegrainscouncil.org
International Food Information Council
www.ific.org

WHOLE GRAIN MOMENTUM
WHOLE GRAINS ARE THE NEW NORM

2 OUT OF 3 people make at least half their grains WHOLE.

87% of those who NEARLY ALWAYS CHOOSE WHOLE GRAINS FOODS have increased their consumption compared to 5 years ago.

WHICH WHOLE GRAINS TOP THE CHARTS?

People eat whole grain bread MORE OFTEN than refined.
People eat whole grain cereal MORE OFTEN than refined.

55% Whole Wheat
47% Oats
41% Brown Rice
37% Corn

Percent of people that make it one of their favorites.

WHY ARE WHOLE GRAINS SO POPULAR?

86% choose whole grains for their HEALTH BENEFITS.
40% choose whole grains for their DELICIOUS TASTE.

NEARLY EVERYONE EATS GLUTEN!

1 IN 2 people have no idea that gluten is a natural protein found in wheat, barley, and rye or that it helps bread rise.

93% of people eat GLUTEN.

Only 1 in 5 of those who avoid gluten has a medically diagnosed problem with gluten.

Download ➔ How to Bake with Whole Wheat 101
Bake for STE(A)M, Careers, Life

- U.S. 16th among developing counties with student science scores→ strengthen interest, knowledge, methods
- U.S. teens trail global peers in math*, performing below average compared with students in 33 other industrialized nations.
- Fast food restaurant spending grew >18 times over 30 years
- Youth/families lack skills to prepare nutrient dense foods at home.*
- Past nutrition education focused on knowledge of food choices alone--did not impact skyrocketing obesity rate.
- 35% (and growing) of adolescents overweight or obese affects every organ, self-esteem, academics, careers, resources

Download Baking Builds STE(A)M power point, homebaking.org

Baking Career Skills

- **Career & Tech**  [https://www.acteonline.org/](https://www.acteonline.org/)
  - Project time management
  - *Problem solving, creativity*
  - Visualization, communication
  - Reading, comprehension, application
  - Team building
  - Cultural/social diversity
  - Tech resources, computers, equipment
  - Food handling, safety, storage

- **Marketing skills, customer preferences, challenges**
  - Smart Snack baking recipes for in-school bake sales at HomeBaking.org
  - **Team work, bake for** Skills USA  [www.skillsusa.org/](http://www.skillsusa.org/)
  - Kansas State University Baking, Milling, Grain Science ROCKS!
    - [www.grains.k-state.edu](http://www.grains.k-state.edu)
Q: What feeds the yeast beast best?


Hypothesis: Which ingredient in a bread recipe do you think will feed yeast best?

Test hypothesis: 4-6 ingredients tested

Control: ¼ cup (2 oz) water, 90°F.

¼ tsp (1 g) yeast (control the type of yeast)

4-6 cups ➔ one variable per cup

EX: 1 tsp. per cup--sweeteners, flour, salt, water only

Analyze: Time observations, 5 minutes; 10 minutes; Measure yeast growth in each cup

Draw conclusion

Communicate results

Source: www.sciencebuddies.org
The science...on gluten

- Gluten = two proteins--glutenin and gliadin
- Gluten found in 3 grains--wheat, rye, barley
- Gluten structure develops when flour mixes with liquids
- Gluten’s the “stretch” needed in dough--bread, pizza, soft pretzel, breadsticks, rolls
- Gluten intolerance and celiac are NOT allergies
- Get a diagnosis before you opt for “gluten-free.” GF foods and diets are often low-fiber, high starch and fat, and more costly

Okwheat.org Download Gluten Myths and Facts at www.wheatfoods.org; trends, www.ific.org
Celiac disease, www.celiac.org

*A Bread with a Twist Lab, www.homebaking.org
Baking is Consumer Science

- Sensory preferences
- Value and quality
- Cost vs. price point $$$
- Packaging
- Food labels
- Advertising
- Nutrition Facts
- Ingredient list
- Health claims
- Product Standards
- Consumer Rights

DIY Gluten-Free Flour Blend

2 cups cornstarch
2 cups potato starch
1 3/4 cups brown rice flour
1 1/2 cups garbanzo bean flour
1 cup sorghum flour
1 cup tapioca flour
1/4 cup teff flour

Directions
Stir together all ingredients in large bowl.
Store in container with tight-fitting lid.
Stir mixture before using in baking recipes.
Source: landolakes.com
American Society of Baking, asbe.org
“...commercial baking professionals, food technologists, engineering, equipment and ingredient experts dedicated to advancing baking and baking science technology.”
http://bakerpedia.com/technology/

New technologies for... ingredient production, milling, baking, delivery, packaging


Sosland Publishing, Food Business News
www.foodbusinessnews.net/
Farm to Table = Ag and Culinary Co-ops

Help students learn what “biotech” is and to weigh the impacts, benefits.

**IMPACTS OF BIOTECH**

The latest PLOS ONE metastudy looked at the impacts of biotechnology. We dive in.

- **Reduction in Pesticides**
  - Before Biotech: 🐜🐜.crm
  - After Biotech: 🐜🐜.crm
  - 37% reduction

- **Increase in Yields**
  - Before Biotech: 🍎🍎🍎
  - After Biotech: 🍎🍎🍎
  - 22% increase

- **Increase in Farmer Income**
  - Before Biotech: $$$
  - After Biotech: $$$
  - 68% increase

Source: International Food Information Council
www.foodinsights.org resources for GMO, Organic, and more
Engineering

- Baking equipment
- Clean label (like home baked)
- Health issues require engineered ingredients,
- (reduced sodium, sweeteners, gluten-free)
- Improved shelf life
- New packaging, food safety
- Sanitation
## Baking is Art

### Designer Colored Sugars

1/3 cup sugar + food colors. Seal. Squeeze to blend.

<table>
<thead>
<tr>
<th>Color</th>
<th>Drops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange</td>
<td>2 drops yellow and 2 drops red</td>
</tr>
<tr>
<td>Peach</td>
<td>4 drops yellow and 1 drop red</td>
</tr>
<tr>
<td>Yellow</td>
<td>4 drops yellow</td>
</tr>
<tr>
<td>Pale yellow</td>
<td>2 drops yellow</td>
</tr>
<tr>
<td>Green</td>
<td>8 drops green</td>
</tr>
<tr>
<td>Lime green</td>
<td>3 drops yellow and 1 drop green</td>
</tr>
<tr>
<td>Blue</td>
<td>5 drops blue</td>
</tr>
<tr>
<td>Turquoise blue</td>
<td>3 drops blue and 1 drop green</td>
</tr>
<tr>
<td>Baby blue</td>
<td>2 drops blue</td>
</tr>
<tr>
<td>Purple</td>
<td>3 drops red and 2 drops blue</td>
</tr>
<tr>
<td>Red</td>
<td>10 drops red</td>
</tr>
<tr>
<td>Rose</td>
<td>5 drops read, 1 drop blue</td>
</tr>
<tr>
<td>Pink</td>
<td>1 drop red</td>
</tr>
</tbody>
</table>

More: *Baking with Friends*, view Quilt Cake video.

---

Dough Sculpting 101, A Bakers Dozen Lab 12
HomeBaking.org
Baking is... Math

- Measurements... temperatures for liquids, batters, doneness of products, best storage
- Weights, measures of ingredients, dough, batter
- Calculate yield, net weight, Nutrition Facts label
- Product cost and price point
- Time use, efficiency
- Consumer acceptance surveys
- A Bakers Dozen Labs and 5 Minute Activities
50, 5-Minute Baking Activities

Subject: Baking Measurements

Activity: Scoop, Spoon, Scale — Compare and evaluate dry measuring methods for accuracy.

Resources Required: One 5-lb bag flour—half left in bag, half in large bowl
Stirring spoon; straight-edged scraper; electronic scale; mixing bowl
Two, 1-cup dry measuring cups; one, 1-cup liquid measuring cup

Introduction: To get the same great product each time, how you measure matters. Compare and evaluate dry ingredient measuring methods for accuracy and impact on results.

Directions: Have three volunteers each measure 1 cup of the same flour, each using a different method.
Weigh each cup of flour in a zero-balanced bowl on the scale.

Volunteer #1: Large bowl, spoon: Stir flour with spoon to loosen; lightly spoon flour into the 1-cup dry measuring cup until heaping full. Level off the flour using straight edge.

Volunteer #2: Scoop flour out of bag with 1-cup dry measuring cup; shake to “level”

Volunteer #3: Large bowl: Scoop flour with 1-cup liquid measuring cup, shake to level

Evaluate: What are the differences in weights between the three methods? What method do test kitchens and professional bakers use? (A: Method #1 and/or scales; 1 cup all-purpose or whole wheat flour = 4.25 oz)

Extra Minute? How much extra flour will you have if you use the method to measure 3 cups flour for bread?
How will the extra flour impact the recipe’s result? (A: heavy, dry, crumbly)

http://www.homebaking.org/images/social_media/SCOOP_SPOON_SCALE_Activity.jpg
"The math skill at kindergarten entry is an even stronger predictor of later school achievement than reading skills or the ability to pay attention, according to a 2007 study in the journal Developmental Psychology.

Parents don't have to know math to help kids get off to a good start. Teaching youngsters to make connections between numbers and sets of objects—think showing a child three Cheerios when teaching the number three—helps children understand what numbers mean better than reciting strings of numbers by memory."
“Baking in the kitchen, Ms. Fiona Cameron explains fractions while having each of her children crack half the eggs.

Filling muffin cups becomes a subtraction problem: "If we fill eight muffin cups and there are 12 in all, how many more do we have to fill?"

Thanks to this "stealth math" approach, her kids are having fun solving problems, she says.”
Bakers Lend a Humane Hand

Help END Childhood Hunger in America

- More than 16 million kids struggle with hunger.
- That's 1 in 5.
- 1/3 are under five years old.
- Sick more often
- Struggle with obesity
- Difficulty concentrating
- Lifelong emotional and health problems

Great American Bake Sale, www.gabs.org
CookingMatters.org

Teach others food skills--Portable Kitchen resources at www.homebaking.org
61% of FCCLA student leaders say they learned to bake from mom/grandma/dad

Like to bake with mom/dad… to talk while we bake/cook

Over 58% of FCCLA leaders would like to teach someone younger to cook/bake

FCCLA National Leadership Conference, HBA surveys
7/2012-2013
Bake for Early Childhood Education

- **Oral expression** (Listen, use language, ask questions)
- **Vocabulary** (single words to label objects, follow simple one-step directions, take turns with adults and peers, wide variety of experiences)
- **Letter Knowledge and Early Word Recognition** (Read together simple, high frequency words)
- **Print and Book Awareness** (Related story and book)
- **Number and Number Sense** (Count objects, one-to-one correspondence, “how many”)
- **Measurement** (Name correct name for tools to take temperature, weight, length, capacity and tell time; comparison terms for hot and cold)
- **Geometry** (position of objects in relation to others—beside, under, below, bottom)
- **Scientific Investigation, Reasoning, Logic** (Identify properties of objects by direct observation; describe using pictures and words; five senses; question)
- **Matter** (Identify colors, shapes, textures; describe position)
- **Civics/Citizenship** (Cooperate with others in joint activity; share thoughts/opinions; demonstrate responsible behaviors in caring for classroom materials; identify needs of other people by helping)

From Virginia’s Foundation Blocks for Early Learning.
Crunchy, Nutty Muffins

**Before You Begin**
Put 12 paper baking cups into a muffin tin.

**You Need**
- 1 cup batter
- 1 cup milk
- 2 teaspoons vanilla
- 2 cups flour
- 1 cup sugar
- 2 teaspoons baking powder
- 1 teaspoon salt
- 1 cup chopped walnuts

**Topping**
- 1 tablespoon butter
- 1 tablespoon brown sugar
- ½ teaspoon cinnamon

1. Crack the egg into a small bowl. Use a whisk to beat the egg.
2. Put the ½ cup of melted butter, the milk, and the vanilla into the small bowl. Stir.
3. Put the flour, sugar, baking powder, salt, and walnuts into a large bowl.
4. Pour the wet ingredients into the large bowl. Gently stir just until mixed. The batter will be lumpy.
5. Mix the topping ingredients in a small bowl.
6. Fill the muffin cups ⅔ full. Sprinkle 1 teaspoon of the topping over each muffin.
7. Bake for 20–25 minutes or golden brown. Cool in the tin for 10 minutes.

**Have fun baking muffins with Mom or Dad this month.**
The Thrill of Skill

Age-Appropriate Kitchen Tasks

Let older children help teach younger ones – everyone benefits!

2 years old:
- Proper hand washing
- Wipe table tops
- Play with safe utensils
- Scrub, wash, tear, snap, break into pieces
- Move pre-measured ingredients from one place to another
- Add ingredients to a bowl

3 years old: All of the above plus...
- Handle dough, begin kneading, simple shaping
- Mix dry ingredients with wire whisk or spoon in extra large bowl
- Shake liquids
- Spread soft spreads
- Place things in trash

4 years old: All of the above plus...
- Peel loose skinned oranges; hard cooked eggs
- Form round shapes with dough
- Mash fruits (bananas) or cooked vegetables
- Cut with dull scissors (nap green onions, dried fruits)
- Set table

5 to 6 years old: All of the above plus...
- Help measure dry ingredients (tsp, spoon, level)
- Cut with a blunt knife (plastic or tableware)
- Use a hand held egg beater or whisk
- Crush crackers in a bag with a rolling pin
- Sprinkle ingredients on salads, cakes, cookies, casseroles

6 to 8 years old: All of the above plus...
- Clean surfaces before and after
- Wash fruits and/or vegetables
- Gather ingredients and equipment
- Grease or spray baking pans
- Measure dry ingredients
- Measure liquid ingredients
- Add measured dry and liquid ingredients into mixer
- Learn to crack eggs
- Cut fruit, butter or margarine sticks on cutting board (plastic or table knife)
- Push buttons on blenders, processors with adult
- Knead dough
- Preheat oven (adults help load products in hot oven)
- Wash dishes, put away ingredients or utensils

9 to 12 years old: All of the above plus...
- Learn safe knife skills (chopping, dicing, and cutting)
- Handle food equipment safely
- Place oven racks and load oven (while oven is cold)
- Safe operation of electric equipment (mixer, microwave, bread machine, food processor, etc.)
- Follow a recipe (measure accurately; prepare a product)
- Read ingredient and food labels
- Safely handle/store ingredients/finished products
- Plan and prepare simple meals, snacks
- Clean up (how and what to wash in dishwasher or by hand)

13 years old and up: All of the above plus...
- Tasks requiring multiple preparation steps or close timing
- Create new flavor combinations, shapes or decoration
- Plan and prepare whole menus for meals or entertaining
- Make shopping lists and shop for ingredients
- Help younger children learn about food and how to prepare
- Enjoy cooking with peers
Lesson found at HomeBaking.org
Make Baking History

- Agriculture... Farm to Fork
- 5,000 years of world bread history
  - Personal, family bread traditions
  - U.S.—hoe cakes, “thirds,” sourdoughs
- Bread Events
  - Famine/bread wars
  - National Festival of Breads
    - www.nationalfestivalofbreads.com
  - Pillsbury Bake-Off
  - National Cornbread Festival
  - Coupe de Monde, Paris
    - www.bbga.org

What’s this annual event???
Web-site and Social Media

- Educator e-newsletter sign-up, archive
- WordPress Blogs
- Pinterest boards
- Baking Glossary w/ video, test kitchen links
- You-Tube how-to videos
- Like and Follow HomeBaking on Facebook, Twitter
Youth Educator Award

Deadline March 31

Educator Award Winners

- Renae Spangler, FCS/FCCLA
  Baking with Friends, Wichita, KS
- Kaye Hendricks, Kindergarten
  Manhattan, KS  Mystery Muffins
- Amy Peterson, MS, RD-
  University of Nebraska-Lincoln
  Extension, Osceola, NE
- Carla Schaer, FCS Educator,
  Sparland, IL  Generation Baking
- Kayla Taylor, FCS--Baking for
  Everyone, Gridley High School
HBA education partners bake.

- Family & Consumer Sciences
- Career & Tech Culinary Classes
- Pre-K to 12th STEM classroom enrichment
- Pre-K and After school programs
- Summer programs
- Camps
- SNAP/EFNEP
- At-home educators
- Education trade media
Gracias  Vielen Dank  Merci  Thanks  Grazie

Members
- Ardent Mills
- Argo Corn Starch
- Chef’s Planet
- Chelsea Milling Company
- Clabber Girl Corporation
- Country Crock
- Domino Foods/C&H Sugar
- Farmer Direct Foods, Inc.
- Fleischmann’s Simply Homemade
- Fleischmann’s Yeast
- Grain Craft
- Hodgson Mill, Inc.
- Hopkinsville Milling Company
- Kansas Wheat Commission
- Karo Corn Syrup
- King Arthur Flour Company
- Land O’Lakes, Inc.
- Lesaffre Yeast Comrportion
- Nebraska Wheat Board
- North American Millers’ Association
- North Dakota Mill
- North Dakota Wheat Commission
- Oklahoma Wheat Commission
- Renwood Mills
- Share Our Strength/Great American Bake Sale
- Shawnee Milling Company
- Sokol and Company
- South Dakota Wheat Commission
- Stafford County Flour Mills Company
- Stone-Buhr Flour Company
- Texas Wheat
- The J.M. Smucker Company
- The Sugar Association
- The Uhlman Company
- Washington Grain Commission

Supporter: Colorado Wheat

Partners
- Family, Career, Community Leaders of America (FCCLA)
- National Extension Association of Family & Consumer Sciences (NEAFCS)
- Wheat Foods Council
- The Whole Grains Council
Thank You

Chocolate Whole Grain Waffles anyone?