



Baking Best Practices:

Bridging Home to Careers



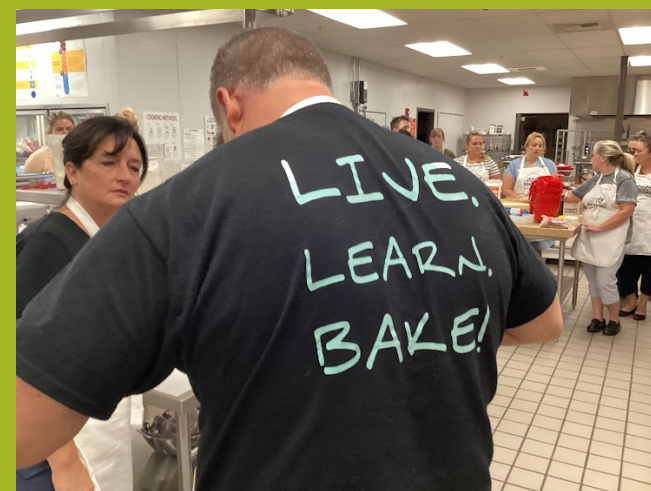
Sharon Davis and Charlene Patton

Home Baking Association

Family & Consumer Sciences
Education Professionals



Great baking beginnings, make great ends.



ANCHOR HOCKING



Who We Are Home Baking Association





HBA Partners



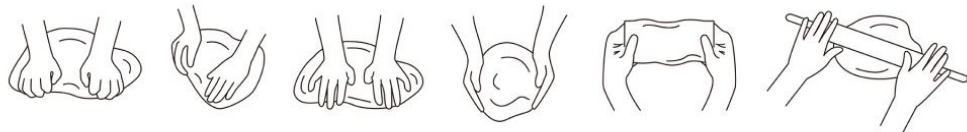


HBA Associate Members

Bakers...chefs...bloggers...authors...teachers...YOU?



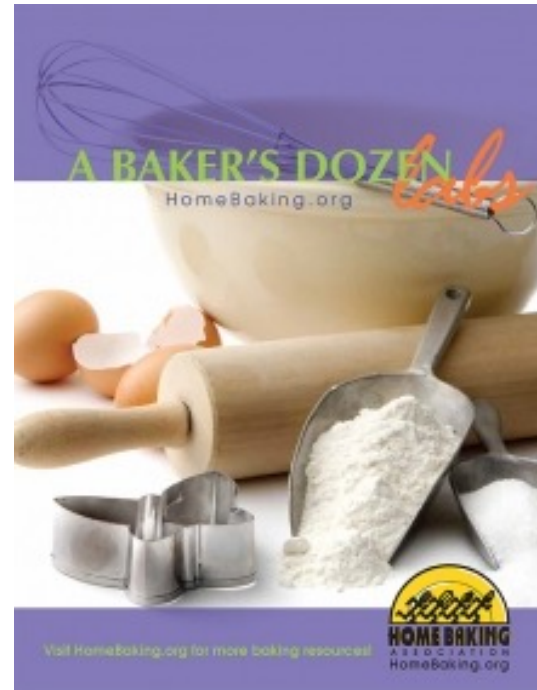
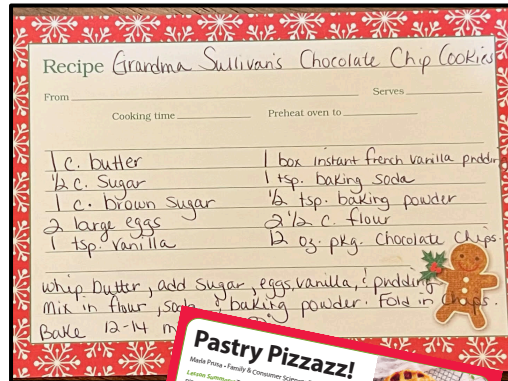
10 Best Practices



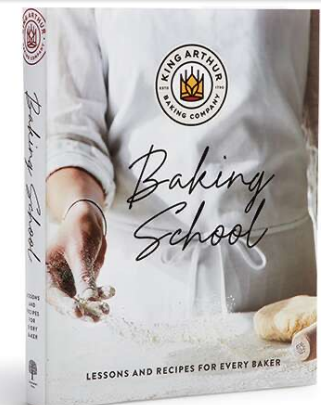
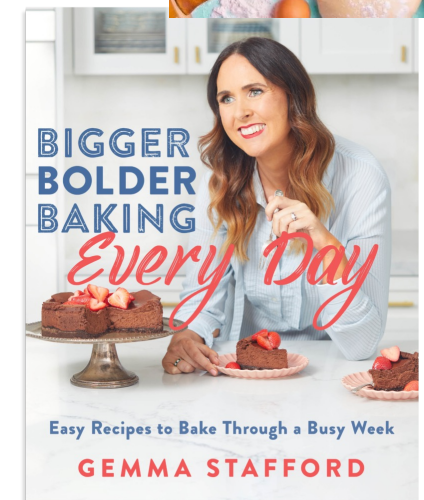
1. **Choose well-tested recipes**, suited to baker's experience level
2. **Read the recipe top to bottom**- (Questions? ingredients, food safety steps; methods, enough time?)
3. **Choose the correct ingredients** (OR sub ingredients to save, boost nutrition, for allergies, beliefs?)
4. ***Mis en place*** ingredients and tools
5. **Heat is an ingredient**- (Check ingredient, oven temps)
6. **Measure/scale accurately** –(Use tested tools, methods)
7. **Apply correct mixing techniques, times**
8. **Scale/portion batter, dough equally**
9. **Baking pan type, treatment, size; oven temp**
10. **Quality internal temps**; (Doneness temps; Cool on wire racks to temp before slicing, wrapping)



#1 - Choose well-tested, skill-suited recipe



- ## HomeBaking.org
- Our Recipes
 - Our members and partners
 - HBA Lessons, labs, books
 - Blogs, Baker's Spotlight, Social media, YouTube



#2- Read recipe, top to bottom- Confirm steps needed, ingredients, know techniques, enough time?



Flour is a raw, agricultural commodity *until it is cooked or baked.*



Multiple studies show that when consumers follow recipes that incorporate basic food safety instructions, they significantly increase food safety behaviors. This style guide provides easy edits to any recipe to improve food safety practices.

[saferecipeguide.org](https://www.saferecipeguide.org)

- TEMPERATURE** Cook until internal temperature reaches XX (XX is the target and recipe starts with specific foods) on food thermometer.
- HAND WASHING** Wash hands with soap and water. *Exclude this at beginning of recipe and after each touch of raw meats, poultry, seafood or eggs.*
- CROSS CONTAMINATION** Wash reuse cutting board, counter, plates, serving dish after touching raw meats, poultry, seafood or eggs. Do not reuse marinades used on raw foods. Do not reuse raw poultry or meat.
- PRODUCE** Gently rub produce under cold running water. Scrub firm produce with a clean vegetable brush under running water.



<https://www.saferecipeguide.org/graphics/>



5 STEPS OF FLOUR & BAKING FOOD SAFETY

FCS Educators needed– On-line Partners



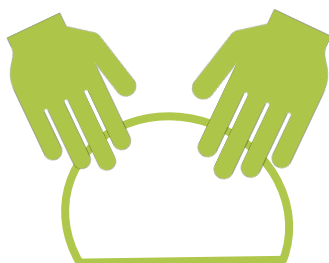
Flour is a minimally processed ingredient that carries pathogens from the field



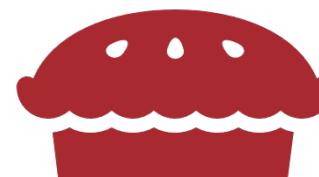
Wash hands before and after



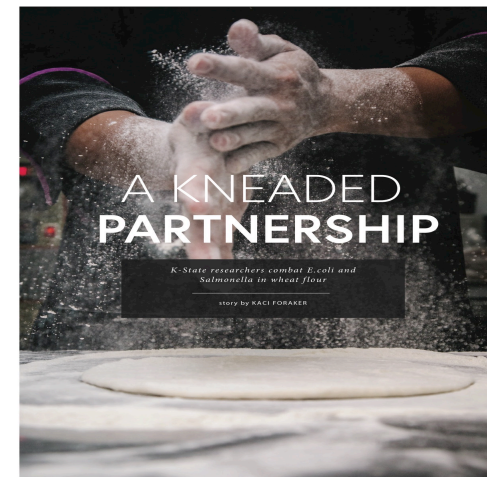
Work with a clean workstation & utensils



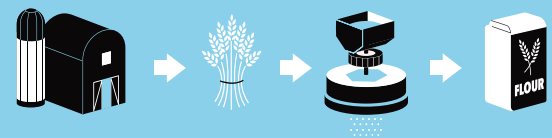
Do not eat raw dough or batter



Cook or bake everything to safe temperature



**DID YOU KNOW FLOUR IS A RAW INGREDIENT?
IT'S TRUE.
WHEAT COMES FROM THE FARM, IS MINIMALLY PROCESSED,
THEN PACKAGED FOR USE**

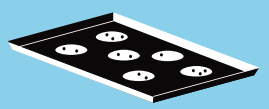


SO YOU SHOULD NEVER EAT RAW FLOUR!

**HEALTH & SAFETY TIPS:
DON'T EAT RAW DOUGH OR BATTER**

WASH HANDS, BAKING TOOLS AND SURFACES WITH SOAP AND HOT WATER

**AND
ONLY EAT FOOD THAT CONTAINS FLOUR
WHEN IT IS FULLY COOKED**



Endorsed By:



www.namamillers.org

Baking and Flour Food Safety Resources

Homebaking.org/baking-food-safety/



Baking Food Safety Lesson
For Home, Classroom, Community or Adult-School Programs
Presented by Sheryl Clark, Family & Consumer Sciences educator, Homebaking.org

Computer Lab

- Explore baking food safety tips.
- Create a One Page Letter of Food Safety resources with the help of the National Food Safety Council.
- Share with guests, family, friends, etc.

Baking Food Storage
Learn about the importance of proper food storage to keep your food safe and fresh.

Safe Recipe Style Guide and Recipe Activities
The safe recipe style guide provides information on how to write a safe recipe. The recipe activities provide information on how to write a safe recipe.

North American Millers' Association
Visit their website to learn more about the importance of proper food storage to keep your food safe and fresh.

Partnership for Food Safety Education
Learn more about the importance of proper food storage to keep your food safe and fresh.

Food Safety Tips
Learn more about the importance of proper food storage to keep your food safe and fresh.

How to take a temperature
Learn more about the importance of proper food storage to keep your food safe and fresh.

Baking Food Safety 101

6 Simple Baking Food Safety Steps

Find a complete Baking Food Safety Checklist on the back.

- STORE** raw flour, baking mixes, dough and eggs separately from ready-to-eat foods.
- BEFORE BAKING**, tie back long hair, clean counters, assemble ingredients and equipment, wash hands, and apron-up.
- KEEP SEPARATE** the measuring, mixing and handling of unbaked batter or dough from cooling, serving and packaging of baked products.
- TEST** baked products with wooden toothpick or cake tester and food thermometer at center to ensure products are completely baked.
- CLEAN** tools, work surfaces and equipment with hot, soapy water or in dishwasher.
- WASH HANDS** before you taste, serve or package baked goods.

Baked Goods Internal Doneness Temperatures

Maximize quality and confirm products are fully baked by reaching these at-center temperatures:

150°F	160°F	165°F	170-175°F	190-210°F	200-209°F
Cheesecakes (Remove from oven at 150°F to avoid cracking; temperature should rise to 160°F as it cools)	Couche Meringue pies Bread pudding Baked custard Clafouti Molten chocolate cakes	Stuffing & casseroles Leftovers Chocolate cream pie Meat-, cheese- or poultry-filled breads (Empanadas, pot pies, pasties, calzones, biscuits)	Custard pies Fruit pies Crème brûlée	Yeast breads (soft rolls) 190°F Crispy bread (210°F)	Most cakes (Pound cake 210°F) Cupcakes Quick breads Scones Biscuits Pecan pie

After baking: Cool product on wire rack. Wash hands before handling products. Refrigerate egg-rich, cream- or meat-filled baked goods within two hours of baking. Yeast breads are best stored at room temperature or frozen if not eaten in one day.

DING! When oven timer indicates product is done, take an internal temperature at the center of the product.

Baker's Bottom Line for Food Safety: Raw flour, baking mixes, batter and dough are not ready-to-eat. Flour, as well as eggs, must be thoroughly cooked or baked before eating to prevent illness from bacteria in the flour. Wash hands, utensils, and surfaces after mixing and handling batter or dough.

HomeBaking.org

Dos and Don'ts of Handling Flour

Follow cooking directions for correct temperatures and times.

Keep raw ingredients like flour separate from ready-to-eat foods.

Refrigerate doughs according to package directions.

Clean up carefully after handling raw ingredients like flour.

Do not eat or allow children to play with raw dough.

Do not use raw cookie dough in ice cream.

Do not use products that contain raw flour to make milkshakes.

Do not keep recalled flour.

Source: U.S. Food and Drug Administration

BAKING FOOD SAFETY guide

6 Simple Baking Food Safety Steps

- Store raw flour, baking mixes, dough and eggs separately from ready-to-eat foods.
- Before baking, tie back long hair, clean counters, assemble ingredients and equipment, wash hands, and apron-up.
- Keep separate the measuring, mixing and handling of unbaked batter or dough from cooling, serving and packaging of baked products.
- Test baked products with wooden toothpick or cake tester and food thermometer at center to ensure products are completely baked. (See chart on back)
- Clean tools, work surfaces and equipment with hot, soapy water or in dishwasher.
- Wash hands before you taste, serve or package baked goods.

BAKER'S BOTTOM LINE FOR FOOD SAFETY:

Raw flour, batter and dough are not ready-to-eat. Flour, as well as eggs, must be thoroughly cooked or baked before eating to prevent illness from bacteria in the flour. Wash hands, utensils, and surfaces after mixing and handling batter or dough.

BAKED GOODS TEMPERATURES

Maximize quality and confirm products are fully baked. Take an internal temperature at the center of the product when oven timer indicates it may be done. These temperatures confirm your product is fully baked.

150°F	160°F	165°F	170-175°F	190-210°F	200-209°F
Cheesecakes (Remove from oven at 150°F to avoid cracking; temperature should rise to 160°F as it cools to ensure bacteria are killed)	Couche Meringue pies Bread pudding Baked custard Clafouti Molten chocolate cakes	Stuffing & casseroles Leftovers Chocolate cream pie Meat-, cheese- or poultry-filled breads (Empanadas, pot pies, pasties, calzones, or biscuits)	Custard pies Fruit pies Crème brûlée	Yeast breads (soft rolls) 190°F Crispy bread (210°F)	Most cakes (Pound cake 210°F) Cupcakes Quick breads Scones Biscuits Pecan pie

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HomeBaking.org

#3- Choose/confirm correct ingredients, temperatures



- Baking powder vs baking soda
- Buttermilk- make own sour milk to sub
- "Room temperature" (??°F) butter, eggs OR "cold" (40 °F) fat; liquid temps for yeast
- Type of flour(s)
- Gluten-free, vegan – Baking for Special Needs
- Nuts- toasted, type, chop first or after measurement
- Variety of apple
- To save \$\$\$\$
- Ingredients to boost nutrition

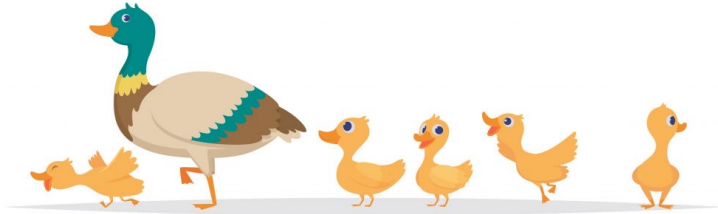


Types of Sugar

Substitution Science ppt



#4- *Mis en place* ingredients, tools



Mis en place video at HomeBaking.org-
Recipe, Buttermilk Banana Bread

Read recipe again and ...

- ❑ Assemble correct ingredients called for or substitutions that will work
- ❑ Do ingredient preps– peeling, dicing, chopping, at correct temperature, yeast sponge or proofed
- ❑ Gather tools, scale, portion scoops
- ❑ Prepare the correct type/size of pan
- ❑ Check oven, place racks, heat 15 minutes ahead of when needed

#5- Heat is an Ingredient😊



1. **Process temperatures-** butter, yeast, flour, eggs
2. **Internal doneness** temperatures
3. **Oven heat-** and re-heat when re-loading
4. **Internal cooling,** wrapping, storage
 - Valuable Thermoworks®CROSS-PROMOTION
 - Chef Earl Martin Quality Temperatures video

Heat is an ingredient!

And carefully measuring how much you add is the key to baking success for students and their families.

Use a digital thermometer to measure your **ingredient and process temperatures...**

Ingredient	Temperature Range
Cutting in Butter	35 to 40°F
Creaming Butter	68 to 70°F
Dry Yeast Flour Blend	65 to 70°F
Water	120 to 130°F
Blooming Yeast (Water Temp)	105 to 115°F
Proofing Dough (Air Temp)	75 to 90°F

Use a digital thermometer to verify your **doneness temperatures...**

Item	Temperature Range
Cheesecake	145 to 150°F
Quiche/Custard/Cream Pie	160 to 165°F
Brioche	180 to 190°F
Bagels	185 to 195°F
Sourdough	190 to 210°F
Rich Cake	200 to 205°F
Muffins	205 to 210°F
Light Cake	205 to 210°F

How to take a temperature

1. Place the probe tip in the center of what you're measuring
2. If powder or liquid, gently stir
3. If solid, push past center and pull back slowly
4. Look for the lowest number on the display

ThermoPop®
4.8 out of 5 stars ★★★★★
2,208 Ratings

- Fast: Readings in just 3 to 4 seconds
- Guaranteed Accurate: ±2°F
- Durable and Splash-proof: IP66 Rating
- Easy to Read: Huge Backlit Display
- Fun Design: Grip with Either Hand
- 4.5" Probe: Keep Your Hand Away from the Heat
- Designed in Utah by ThermoWorks

\$35.00 \$17.50 (plus shipping)
Exclusive price for students and their families
Go to [ThermoWorks.com/ThermoPop](https://www.thermoworks.com/thermopop) and use Discount Code **STUDENTOFFER22** at checkout...

Take it from the experts...

Cook's Illustrated/America's Test Kitchen calls it "dead accurate and extremely fast" that "makes the best of its size with a grippy, ergonomic design that's reasonably secure and easy to push and pull out of dense foods." They awarded it...

Best Inexpensive Digital Thermometer

Good Housekeeping says "For anyone looking for a simple, easy-to-use instant-read thermometer, the colorful ThermoWorks ThermoPop Thermometer...features big digits, a rotating head so you can check temps from any angle, and a thin tip." Awarded...

Easiest-to-Use Thermometer

ThermoWorks
www.thermoworks.com

HOME BAKING ASSOCIATION
www.homebaking.org



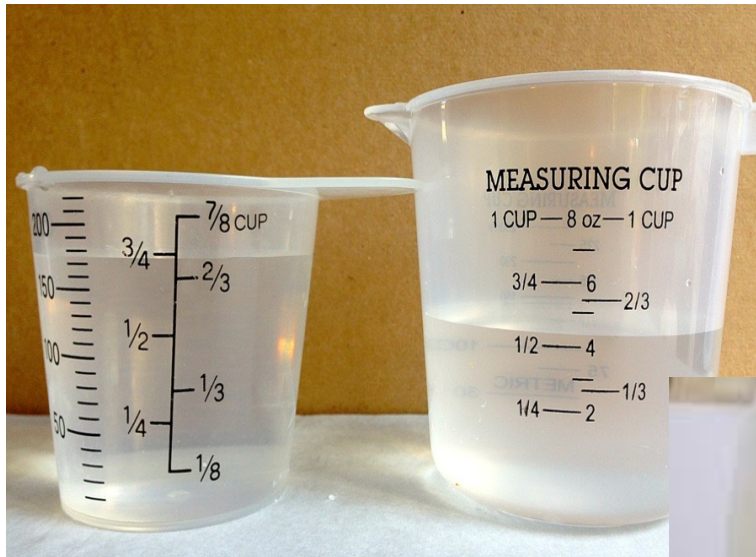
<https://www.thermoworks.com/home-baking-association>



<https://www.homebaking.org/wp-content/uploads/2022/04/HBA-Student-Flyer-with-recipe.pdf>

#6- Measure/scale accurately

use tested tools and methods



Liquid measuring cups
most variable- is it 8 oz?

Fluff, spoon, level

1. Scales most accurate,
2. Less mess –
3. YouTube - *Measurement Matters- How to measure/scale*



7- Apply correct mixing techniques, times



- Aerate
- Blend
- Beat
- Blind bake
- Bloom yeast
- Brown
- Caramelize
- Combine
- Cool
- Cream
- Cut –in
- Dissolve
- Fold
- Incorporate
- Knead
- Melt
- Scald
- Simmer
- Whip
- Whisk

HomeBaking.org/glossary/

#8-Scale/portion batter, dough



Control for quality, baking, calories, cost control, marketing, sales...



#9-Baking pan types, treatment, size

- Why Bake in Glass? [infographic](#)
- Dark metal vs shiny vs textured
- Cookie sheet (edgeless) vs jelly roll pan
- Steel 1/4, 1/2 and full sheet pans
- Aluminum (single use)
- Parchment vs grease vs pan spray
- Pan substitutions- loaf, tube, cake, muffin



DEPENDABLE
BAKES EVENLY, RETAINS HEAT
SO IT KEEPS FOOD WARMER,
LONGER & CLEANS EASILY

DURABLE
GLASS WILL NOT WARP OR STAIN

VERSATILE
BAKE, SERVE & STORE; CLEAR
GLASS ALLOWS YOU TO
SEE WHAT IS BAKING

WHY BAKE WITH GLASS?

GLASS VS. METAL BAKEWARE
RETAINS MOISTURE BETTER THAN METAL

DID YOU KNOW THE WORD TEMPERED MEANS:
A process in which glassware is subjected to sustained heating followed by rapid cooling to enhance strength and increase durability. (like your car windshield!)

BEST WAYS TO CARE FOR GLASS BAKEWARE

- CLEAN WITH NON-SCRATCH PADS AND CLEANSERS
- AVOID SEVERE TEMPERATURE CHANGES AND IMPACT WITH HARD OBJECTS
- ALWAYS USE OVEN MITTS
- USE ONLY IN PRE-HEATED CONVENTIONAL OVEN UP TO 425°F OR MICROWAVE OVENS
- DO NOT PLACE ON STOVETOP, UNDER BROILER OR IN TOASTER OVEN

AND ALSO, WHAT IS THIS?:
SODA-LIME-SILICATE GLASS: it is glass made of SODA LIME (70 SiO₂, 10 CaO, 15 Na₂O) and is the type of glass used to make Anchor Hocking bakeware.

WHY IS ANCHOR HOCKING GLASS MADE FROM SODA LIME SILICATE?

ANCHOR HOCKING BRAND'S TEMPERED SODA-LIME-SILICATE GLASS BAKEWARE IS STRONGER AND MORE DURABLE THAN BOROSILICATE BAKEWARE. IF IT HAPPENS TO BREAK, IT BREAKS INTO RELATIVELY SMALL PIECES GENERALLY LACKING SHARP EDGES. IT IS 100% RECYCLABLE.

ANCHOR HOCKING GLASS BAKEWARE COMPLIES WITH COOKWARE MANUFACTURERS ASSOCIATION'S ENGINEERING STANDARD OF EXCELLENCE

ANCHOR HOCKING

TEMPERED TOUGH

STANDARDS OF EXCELLENCE

AMERICAN MADE

#10- Quality internal temps

- Heat is an Ingredient
- Remove from pans according to directions
- Cool on wire rack
- Take internal temp before slicing, wrapping – less than 100°F

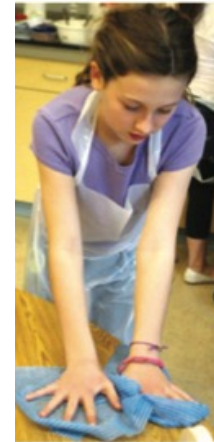


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- 4 **TEST** baked products with wooden toothpick or cake tester and food thermometer at center to ensure products are completely baked.
- 5 **CLEAN** tools, work surfaces and equipment with hot, soapy water or in dishwasher.
- 6 **WASH HANDS** before you taste, serve or package baked goods.



Baked Goods Internal Doneness Temperatures

Maximize quality and confirm products are fully baked by reaching these at-center temperatures:

DING! When oven timer indicates product is done, take an internal temperature at the center of the product.

150°F



Cheesecakes
(Remove from oven at 150°F to avoid cracking; temperature should rise to 160°F as it cools)

160°F



Quiche
Meringue pies
Bread pudding
Baked custard
Clafouti
Molten chocolate cakes

165°F



Stuffing & casseroles
Leftovers
Chocolate cream pie
Meat-, cheese- or poultry-filled breads (Empanadas, pot pies, pasties, calzones, bierocks)

170°-175°F



Custard pies
Fruit pies
Flan
Crème brûlée

190°-210°F



Yeast breads (Soft rolls 190°F Crusty bread 210°F)

200°-209°F



Most cakes (Pound cake 210°F)
Cupcakes
Quick breads
Scones
Biscuits
Pecan pie

After baking: Cool product on wire rack. Wash hands before handling products. Refrigerate egg-rich, cream- or meat-filled baked goods within two hours of baking. Yeast breads are best stored at room temperature or frozen if not eaten in one day.



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HomeBaking.org

Baking with Children

Teach them to bake while young so they will benefit for life.

- Apply best practices at home or classrooms or clubs
- Read recipe- demonstrate to learn terms, techniques, methods
- *Mis en place* ingredients, tools
- Choose/share tasks safe for age, skills
- Early childhood- Play only with *cooked* play dough if child is still putting things in mouth
- Teach all ages to not taste raw dough, batter
- Wash hands and surfaces before and after measuring, mixing, shaping, and distributing batter
- Take ingredient and Internal baked good temps
- Wash before you handle, serve, package or taste



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
Pour cool liquids into mixture
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 (snap green onions, dried fruits)
Set table

5 to 6 years old: All of the above plus...
Help measure dry ingredients (sift, 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 mixing bowl
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 (mixers, 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



From Baking with Friends: Recipes, Tips and Fun Facts for Teaching Kids to Bake



[Play Clay video](#)

ENTER!!

TWO Awards! Adults and Youth... Enter by May 31.



- Youth, Grades 7th to 12th
- ***Bake to Give*** Maddie Kruse Youth Award- \$1000 and trip for two
- Enter by May 31 (extended)
- Bake to Give Resources to get started
- <https://www.homebaking.org/youthaward/>



- Adults who teach baking should enter by May 31 (extended)
- Classrooms, out-of-school clubs, community, home, camps...
- Guidelines to be eligible for \$1000 award and trip





Thank you!!



Home Baking Association--Building Bridges, Home to Careers.

Follow us monthly for the latest in baking resources

- **Baking Educator ENEWS** <https://www.homebaking.org/newsletter/>
- **Baking Calendar of Hospitality and Hacks** <https://www.homebaking.org/content/uploads/2023/03/April-Baking-Calendar2023.pdf>
- **Follow us on Social Media for Blogs, posts, recipes, resources** <https://www.homebaking.org/blog/>
- <https://www.facebook.com/homebakingassociation/>
- <https://www.instagram.com/homebakingassociation/>
- <https://www.youtube.com/user/homebaking>

