

# STEM 2-Day Baking Workshop@ New Tech Skills Center

August 6 & 7, 2022



The Home Baking Association and WA-FACSE will provide FCS teachers with a two-day hands-on baking professional development workshop of best practices and teaching strategies for secondary students. A draft schedule follows.

Who/What: WA FACSE/CTE Baking Professional Development  
Two-day *Baking STEAM 2022* Hands-on Workshop  
Where: New Tech High School, Spokane, WA  
Presenters: Sharon Davis, Home Baking Assoc Baking Instructor, FCS Ed  
Connie Nieman, Co-teacher, HBA  
When: August 6-7, 2022 – 8:00 AM to 4:30 PM each day  
Sponsor: Washington Grain

**FCS Nat'l Standards 3.0**  
[nasafacs.org](http://nasafacs.org)

## **August 6: Welcome!**

7:45 to 8:00 AM—Arrive, introductions, “housekeeping” (Dawn Boyden)  
Sensory Analysis: Sweet and Savor Scones

8:00 to 8:30 – Baking STEAM- Home to Career Connections

8:30 to 9:30 – Best Practices-Baking Food Safety  
Baking Temperatures for Quality Results  
Baking Ingredient Functions (Hands-on teaching strategies  
Wheat/Flour/Leavening/Sweeteners/Fats/Liquids/Salt

9:30 to 10:00—Consumer Science- Baking Ingredient Myths, Trends,  

- What's Gluten? Flour is Not Just Flour
- Sugar Myths, Facts and Functions in Baked Goods
- Whole grain Rich, Vegan, Gluten-Free Baking

10:00 to 10:30—Baking *mis en place*, measurement math, scaling  
(Connie, Sharon) Resources and activities

**BREAK**

LAB 10:45 LAB Instructor demos; team up and lab dough prep  
Flat Bread (Tangzhong method) (for lunch);  
Science Lab: English Muffin Batter Bread Flour Variations  
Prep Focaccia dough, refrigerate

Lunch: Enjoy Flat Bread Wraps;  
Bake off English Muffin Test Loaves  
Pastry and Pies- Ingredient Functions; 3-2-1 Pastry Math

**BREAK**

1:15 to 1:45 PM—LAB Instructor Demos:  
Artisan 5- Minute Dough; Pastry 3-2-1;  
Temperatures, Techniques for pastry and scone baking  
Evaluate English Muffin Test Bake

LAB: 1:45 to 2:30 PM—Lab Teams prep pastry dough, chill  
Science Lab: Prep pastry with fat variations, chill

## **Career Community and Family Connections**

1.2 Demonstrate Transferable knowledge, attitudes, and technical and employability skills in school, community and workplace settings.

1.3.2 Demonstrate skills individuals and families can utilize to support civic engagement in community activities

## **Consumer and Family Resources**

2.1.3 Analyze decisions about providing safe and nutrition food for individuals and families.

2.2.3 Demonstrate behaviors that conserve, reuse, and recycle resources to maintain the environment.

## **Food Production and Services**

8.2.5 Practice standard personal hygiene and wellness procedures

8.2.7 Demonstrate safe food handling and preparation techniques that prevent cross contamination from potentially hazardous foods and food groups

8.4.7 Apply principles of measurement, portion control, conversions, food cost analysis

8.5.2 Demonstrate professional skill for a variety of cooking methods including...baking using professional equipment and current technologies.

8.5.14 Demonstrate cooking methods that increase nutritional value, lower calorie content, utilize herbs, spices

## **Food Science, Dietetics and Nutrition**

9.5.6 Conduct sensory evaluations of food products

## **Hospitality, Tourism and Recreation**

10.4.4 Apply basic food preparation and service skills in catering operations

## **Workshop STEAM References:**

*A Bakers Dozen Labs, 2018*

USB-HomeBaking.org

*Baking Food Safety 101, 2019, 2022*

*Dough Sculpting 101, HomeBaking.org*

*50, 5-Minute Baking Activities.*

*Bread Baker's Apprentice* Peter Reinhart

*The Baker Bettie Cookbook, 2021 and BakerBettie.com*

*BiggerBolderBaking.com*

*Baking Glossary, HomeBaking.org*

*The Essential Cookie Companion.* King

Arthur Baking Company, 2021

*Quality Baking Temperatures,*

Prep Artisan Dough, refrigerate (for day 2)  
Bake off pastry science dough- Cinnamon Crisps, evaluate

BREAK:

LAB: 2:45 to 4:00 PM—Demo Baking Innovations, Added Value-  
Create Artisan Focaccia (1/2 dough) and bake  
Refrigerate ½ dough for pita, Day 2  
Designer Scone baking

4:00 PM – Designer Scone sampling  
Teaching strategies. short class periods; costing  
Artisan Focaccia cross-curricular partnerships (Art;  
Ag; Literature; Science; Marketing)  
Milling/baking resources on-line; USB drive



4:30 to 5:30 PM – TBD-Career Connections.

*Local Tour? WA Wheat speaker? Baker Bettie via ZOOM*

**August 7:** Day 2, Welcome, details. (Dawn)

8:00 to 8:15 AM—Sensory Analysis – 100% Whole White Wheat Graham Crackers

8:15 to 9:00 AM— Cookie Science: Ingredient Functions, Variations

9:00 AM—9:45 AM- Instructor Demos; Shaping Artisan Dough;  
Baguette; Fougasse; Pita  
Outline Cookie Science: Thin, Crisp, Chewy Substitution lab (Sharon)

BREAK

LAB 10:00 to 11:30 AM—Shape artisan breads, and pita  
Proof and bake fougasse; pita  
Conduct Cookie Science *Thin, Chewy, Puffy* Substitution lab; evaluate  
Prep hummus; veggies for pita sandwiches

11:45 to 12:45 PM—Enjoy Pita sandwiches with lunch speaker (WA Grain OR ZOOM Guest Baker)  
Evaluate Cookie Science Lab

Break

1:00 to 2:30 PM—Teaching strategies for baking math  
3-2-1 Pastry; Baker's %  
Bake for Fund\$- ingredient cost-cutting; product costing;

sales

Bake for No Kid Hungry resources

BREAK

2:45 to 3:45 PM— Baking Coconuts and Chocolate  
How to Conduct a Chocolate Tasting; Chocolate Tasting  
SAMPLE Cookie Science: Double Chocolate Cookies/Ingredient Substitutions  
Cookie Science Teaching Strategies

3:45 to 4:15 PM— North American-made Earth-friendly Packaging- ZOOM, goodnatured.com



pricing;

4:15 to 5:00 PM—Summary, questions, resources, evaluation

**All participants receive a HBA Baking STEAM Kit- USB, Thermopop; ingredient samples**

- USB 350-page *A Baker's Dozen Lab manual, 2018 version; NASAFACS 3.0 standards and STEM aligned* (\$125 value)
- *Load resources from workshop onto USB for back-up storage*
- An HomeBaking.org baker's apron will be provided; All students bring: Hair covering; *lap-tops, or pads to access resources shared. Please wear close-toed (foods) lab shoes; no jewelry or nail polish please.*

Draft