



Build FCS Baking STEAM Home to Career

Thank you, Ann Dietchman, ND CTE FCSE Program Supervisor, for the opportunity to provide a 2025 Baking STEAM teacher professional development two-day workshop. Thank you to Lexi Heaton for hosting this event at Bismarck High School.

The Home Baking Association **Baking STEAM** team will include: Mike Leddige, North Dakota Mill; Erica Olson, North Dakota Wheat; The Sugar Association with American Crystal Sugar/Red River Valley Sugar Beet Growers; Jenna Baker, Rodelle-ADM Vanilla Team; Sharon Davis, FCS Education, Baking Instructor HomeBaking.org

*mis en place...scaling...ingredient functions...facts ... time and temperature
...baking food safety...careers...costs...strategies...best practices...tried and true*



wheat...milling...flour...master formulas...farm to oven...trends...resources...



Tuesday, July 15 - DAY One - Bismarck H.S.– 800 N. 8th St. Park, Bismarck, ND

8 AM – Classroom- Welcome, Ann Dietchman, ND FCS/FCCLA/CTE Program Supervisor and Chris Kirby, HBA Exec. Director (Via Zoom)

- On arrival- Smart Snack sensory analysis baked item (Sharon)
- Lab Orientation w Host

8:30 to 9:30- **Baking Ingredient Functions**- flours, fats, sugars, leaveners, salt, eggs- (Sharon)

- Includes 5 to 15 minute teaching strategies/activities- Flour is NOT Just Flour; Naturally Sweet; Yeast is Not a Beast

9:30- 10:15 – **Top 10 Baking Best Practices & Methods Home to Career** – (Sharon)

- Share teaching strategies, on-line links to baking math, sciences

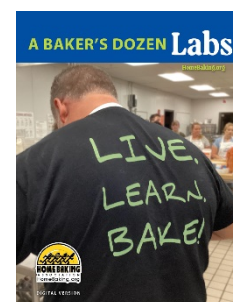
BREAK- 10:15

10:30 – LAB *mis en place*/demo- Quick yeast fermentations- One-Hour Focaccia; English Muffin Bread (Sharon)

- Lab groups, apron-up, wash, read recipes/*mis en place*

10:30 to Noon- **BAKE Labs**- prepare Quick Artisan Focaccia dough, English Muffin Bread Flour Science experiment

- **Prep** quick yeast bread (for lunch) and English Muffin flour experiment (flour variables)



- **Bake off** Focaccia breads to eat and English Muffin bread to evaluate
- Additional preps for lunch- salad, meats/cheeses/fruit

Noon- **North Dakota Mill's Vital Role Getting Flour in the Bowl** – Mike Leddige

- Flour for FCS classrooms – Mike Leddige
- Explore Careers in grain, milling and baking sciences (futureinbaking.org- Sharon)
- Evaluate English Muffin Bread Flour Science



1:30- **Baking Temperatures to Measure**– process and doneness food safety temperatures – Sharon/ThermoWorks

2:00 to 3:00 – BAKE Lab - ***mis en place and PREPS - for DAY 2***

- Designer Scones (Each person prepares ½ dough - cut, bite-size; freeze to bake Day 2)
- Each TEAM prepares a long fermentation Potato Refrigerator yeast dough and Pita Dough

3:15 to 4:00- **North Dakota Wheat - Local AND Global**, Erica Olson, ND Wheat Commission

- Careers, farm to oven (Erica)



4:00 PM- Load cars, travel to Wheat Farm with Erica/ND Wheat- TBD

Dinner - Hosted by North Dakota Mill - Mike Leddige

Wednesday, July 16-DAY Two - 7 AM- HBA team will bake-off teams' frozen Designer Scone Bites

8:30 AM- Sensory tasting, Designer Scones; Fat variations in Baking (Sharon)

8:45 AM – A **Vanilla Sensory Experience** with Rodelle Test Kitchen (via ZOOM)



9:45 AM **Value-Added Baking** - Ingredient Substitution Trends, Nutrition, Flavors, Shaping (Sharon)

- HomeBaking.org – More Member connections with innovations, test kitchens, tutorials
- DEMOS: Refrigerator Dough Shaping; Summer Fruit Chop Bread (Sharon & on-line video resources)

10:15 - Break-

10:30 AM - BAKE lab- Teams

- **Shape, proof and bake**- personal pizza OR pita (TBD)
- **Value**-added shaping – Potato Refrigerator Dough - Braids, Rolls,
- Preps, lunch

Lunch: - Enjoy pita or personal pizza (Teams - TBD) with Summer Fruit Chop Bread for Dessert (Sharon)

Speaker:

1:30 PM – BAKE lab- Quick Breads: **Fruit and Veggie Master Recipe** w/ variations - a BakerBettie.com Master Recipe

- Prep your labs variation, bake-off as muffins or loaves
- Create label: Product name, target market, price point estimate
- Teams share product creations- Sample/analyze
- Clean labs; break

3:00 PM – ***Sugar 101*** –

- Speaker: Red River Valley Sugar Beet Growers Assoc, Harrison Weber (Sponsored by The Sugar Association) OR American Crystal Sugar
- Feature Resources, The Sugar Association – sugar.org; Sugar STEM; Sugar Myths and Common Misunderstandings; Sugar Types and Functions in Baking (Sharon or ZOOM with SA)



4:00 - 4:30 PM - Q&A; Share teaching strategies, resources you love

Wrap up, evaluations, graduation- Ann Dietchman, Sharon, Mike, Erica, Mari 😊



Thank YOU, North Dakota Family & Consumer Sciences/CTE teachers.

Baking STEAM 2025 Sponsors and Speakers

North Dakota Family & Consumer Sciences, Ann Dietchman - <https://www.cte.nd.gov/facs>

- Bismarck High School, Lexi Heaton, alexis_heaton@bismarkschools.org

*North Dakota Mill, Mike Leddige- www.ndmill.com mleddige@ndmill.com

*North Dakota Wheat Commission, Erica Olson– www.ndwheat.com eolson@ndwheat.com

*Rodelle, Jenna Baker – www.rodellekitchen.com jenna.baker@adm.com

*The Sugar Association, Arya Pazhwak – www.sugar.org pazhwak@sugar.org

- American Crystal Sugar Company (ACSC) www.crystalsugar.com
- Red River Valley Sugar beet Growers Association (RRVSGA), Harrison Weber, <https://youtu.be/f6OwTzvt7Tw>

* Special thanks for supporting funds for meals, resources and sponsoring HBA to provide this workshop!

****Schedule subject to change******