Unit 4: Yeast Breads

Content Area: **Art**
Course(s):
Time Period: **MP2**
Length: **8 days**
Status: **Published**

Targeted Standards

9.4.12.CI.1	Demonstrate the ability to reflect, analyze, and use creative skills and ideas (e.g., 1.1.12prof.CR3a).
9.2.12.CAP.3	Investigate how continuing education contributes to one's career and personal growth.
9.4.12.CT.1	Identify problem-solving strategies used in the development of an innovative product or practice (e.g., 1.1.12acc.C1b, 2.2.12.PF.3).
9.2.12.CAP.6	Identify transferable skills in career choices and design alternative career plans based on those skills.
9.4.12.GCA.1	Collaborate with individuals to analyze a variety of potential solutions to climate change effects and determine why some solutions (e.g., political. economic, cultural) may work better than others (e.g., SL.11-12.1., HS-ETS1-1, HS-ETS1-2, HS-ETS1-4, 6.3.12.GeoGI.1, 7.1.IH.IPERS.6, 7.1.IL.IPERS.7, 8.2.12.ETW.3).
9.4.12.TL.2	Generate data using formula-based calculations in a spreadsheet and draw conclusions about the data.
9.4.12.TL.3	Analyze the effectiveness of the process and quality of collaborative environments.

Rationale

This unit introduces students to the science and techniques of yeast bread production. Students will investigate the role of yeast as a biological leavening agent, the stages of bread production, gluten development, fermentation, and proofing. Through hands-on laboratory experiences, students will prepare a variety of yeast breads while reinforcing accurate measuring, food safety, teamwork, time management, and standardized recipe skills. Students will evaluate finished products using industry quality standards and develop an understanding of the precision required in commercial baking.

Essential Questions

Content Specific	Skills Specific
• How does yeast make bread rise? • Why is gluten development important? • What factors influence the quality of yeast breads? • How do quick breads and yeast breads differ?	• How do I properly prepare yeast dough? • How do I know when dough has been kneaded enough? • How do I determine when bread is fully proofed and baked? • How do I evaluate the quality of finished

	bread?

Spiraling for Mastery

Content or Skill for this Unit	Spiral Focus from Previous Unit
• Yeast bread production • Gluten development • Fermentation • Dough handling • Baking science • Product evaluation • Time management	• Food safety and sanitation • Accurate measuring • Recipe reading • Mise en place • Ingredient functions • Teamwork • Communication • Kitchen organization • Product evaluation

Career Readiness, Life Literacies, and Key Skills

Please tag the appropriate **2020 NJSLS-CLKS** standards that align with the grade band and content/skills of this unit. This is done by clicking "actions" and then "add standards".

9.4.12.CI.2	Identify career pathways that highlight personal talents, skills, and abilities (e.g., 1.4.12prof.CR2b, 2.2.12.LF.8).
9.4.12.CI.3	Investigate new challenges and opportunities for personal growth, advancement, and transition (e.g., 2.1.12.PGD.1).

Interdisciplinary Connections

How does this unit connect to standards in other disciplines? Add the appropriate **NJ SLS** here, keeping grade bands in mind. This is done by clicking "actions" and then "add standards".

Science

- Fermentation
- Biological processes of yeast
- Gluten formation
- Physical and chemical changes during baking

Mathematics

- Measuring ingredients

- Scaling recipes
- Time management
- Temperature monitoring

English Language Arts

- Reading and interpreting standardized recipes
- Technical culinary vocabulary
- Written product evaluations

Health Education

- Whole grains and nutrition
- Dietary fiber
- Balanced meal planning

Technology

- Google Classroom
- Digital recipe resources
- Baking demonstration videos
- Digital lab reflections

N.Q.A.1	Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
N.Q.A.3	Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.
S.MD.B.7	Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game).