

Core Skills Analysis

Culinary Arts and Sensory Science

- Explored the unique flavors and aroma profile of matcha, understanding how its natural bitterness and earthiness contribute to the overall taste experience.
- Learned to experiment with ingredient combinations (e.g., types of milk, sweeteners, and additional flavors) to find an optimal balance that enhances the matcha latte.
- Developed practical skills in beverage preparation including measuring, mixing, and tasting to achieve a consistent and desirable flavor profile.
- Gained an appreciation for the cultural significance of matcha and how its flavor can be adapted to modern palates while respecting tradition.

Scientific Method and Critical Thinking

- Applied hypothesis testing by predicting which flavor combinations might complement matcha before trying them.
- Practiced observational skills by noting changes in taste, texture, and aroma with different ingredient ratios.
- Refined ability to critically evaluate sensory feedback to iteratively improve the recipe.
- Understood the importance of controlled experimentation—changing one variable at a time to understand its impact on flavor.

Tips

To further develop the student's understanding, encourage them to explore the chemistry of flavor pairing and how different compounds interact to produce taste sensations. They might try creating flavor wheels or charts to visualize potential combinations. Organizing a blind taste test with friends or family could build confidence in sensory evaluation and presentation skills. Additionally, researching matcha's origins and its role in Japanese culture provides a rich context, fostering cultural appreciation alongside culinary creativity.

Book Recommendations

- [The Flavor Bible](#) by Karen Page and Andrew Dornenburg: An extensive guide on flavor pairings and culinary creativity perfect for experimenting with new recipes.
- [Matcha: The Ultimate Guide with Recipes from Japan to the World](#) by Will Meyrick and Helen Nash: Delves into the history, health benefits, and a variety of matcha recipes, helping deepen understanding of this iconic tea.
- [Taste What You're Missing: The Passionate Eater's Guide to Why Good Food Tastes Good](#) by Barrett Beyer: Explains the science behind flavor perception and encourages adventurous tasting and cooking.

Learning Standards

- CCSS.ELA-LITERACY.RST.9-10.3: Follow precisely a complex multistep procedure when carrying out experiments or technical tasks.
- CCSS.ELA-LITERACY.WHST.9-10.7: Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions.
- CCSS.MATH.CONTENT.HSN.Q.A.1: Use units as a way to understand problems and to guide the solution of multi-step problems.

Try This Next

- Create a flavor journal to record different ingredient ratios and their taste outcomes.
- Design a sensory evaluation worksheet to rate sweetness, bitterness, creaminess, and aroma

intensity.

Growth Beyond Academics

This activity promotes independence and patience as the student navigates trial and error to refine their recipe. It also fosters curiosity and confidence by encouraging personal taste exploration and ownership over the creative process.