Unit 6: Vegetables and starches

Content Area: **Art**
Course(s):
Time Period: **MP4**
Length: **10 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).
9.1.2.CAP.4	List the potential rewards and risks to starting a business.
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).
9.4.12.TL.1	Assess digital tools based on features such as accessibility options, capacities, and utility for accomplishing a specified task (e.g., W.11-12.6.).

Rationale

In a commercial culinary environment, side dishes—starches and vegetables—are critical to menu profitability, plate architecture, and timing synchronization. While proteins often anchor the plate, vegetable and starch stations (Entremetier) manage the highest variety of products, complex hot-hold dynamics, and precise batch cookery to maintain color, texture, and nutritional value under volume service. Third-year students acting in leadership roles must master batch production schedules, yield optimization, starch gelatinization/reduction techniques, and cross-station timing to ensure zero bottlenecking at the pass.

Essential Questions

Content Specific	Skills Specific
• How do commercial kitchens leverage blanching, shocking, and batch cooking to serve fresh, vibrant vegetables quickly during a dinner rush? • How does the chemical structure of different starches (e.g., high-amylose vs. high-amylopectin) influence technique selection and holding capacity in high-volume dining?	• How does the Entremetier leader ensure side dishes are finished at the exact instant the protein station calls for pickup? • What strategies can a kitchen manager use to minimize vegetable trim waste and repurpose starch leftovers into profitable menu items?

Spiraling for Mastery

Content or Skill for this Unit	Spiral Focus from Previous Unit
• High-volume Entremetier leadership, • batch-to-order timing • starch structure control • vegetable waste optimization	• Ticket expediting command from Unit 5 • foundational mother/small sauce pairings • knife skills precision (dice, julienne, batonnet).

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".

- NJSLS Mathematics — High School (N-Q.A.1, A-REI.A.1):
    - Connection: Calculating expansion ratios of rice/grains, water-to-grain proportions by weight, percentage loss from vegetable trimming, and batch multiplication formulas for banquet service.
- NJSLS English Language Arts — Technical Reading & Speaking (NJSLSA.R7, NJSLSA.SL.1):
    - Connection: Communicating precise verbal timing callouts between the Entremetier and Sauté/Grill stations; writing standardized batch prep instructions for junior cooks.
- NJSLS Science / Chemistry (HS-PS1-2, HS-LS1-6):
    - Connection: Plant cell wall structure breakdown (cellulose/pectin under heat), gelatinization temperature ranges of starches, oxidation prevention (enzymatic browning), and pH effects on plant pigments.

2.1.12.PGD	Personal Growth and Development
PS1.A	Structure and Properties of Matter

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).
2.2.12.N.1	Compare and contrast the nutritional trends, eating habits, body image, and the impact of marketing foods on adolescents and young adults nationally and worldwide.
2.2.12.N.4	Implement strategies and monitor progress in achieving a personal nutritional health plan.
2.3.12.PS.1	Apply a thoughtful decision-making process to evaluate situations and influences that could lead to healthy or unhealthy consequences (e.g., peers, media).
HS-LS1	From Molecules to Organisms: Structures and Processes
HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.