Family & Consumer Science

Stonington Public Schools

Food and Nutrition I: Foundations

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Food and Nutrition 1: Foundations

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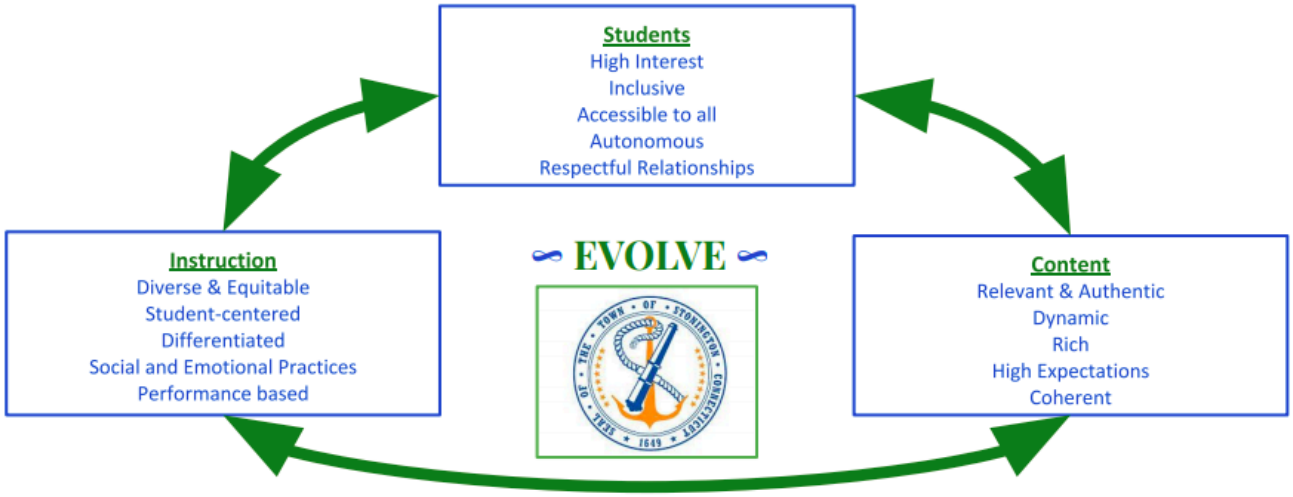
Career and Technical Education

Career and Technical Education (CTE) provides students of all ages with the academic, technical skills, knowledge and training necessary to succeed in future careers and to become lifelong learners. CTE encompasses a wide range of activities to provide students with skills demanded in the labor market while preparing them for post-secondary degrees. Activities include not only hands-on learning, specific career-oriented classes, but also internships, apprenticeships and in-school programs designed to foster work readiness skills. Today's rigorous and relevant CTE prepares students for a wide range of high-wage, high-skill, and in-demand careers.

District Curriculum Philosophy



Curriculum Philosophy from a Student Perspective

Students in Stonington Public Schools will experience and engage with an inclusive curriculum. The curriculum will encompass a variety of experiences and will be accessible to all students while providing a strong foundation for students to have a voice and make a positive impact in the modern world. The curriculum will be a living entity, ever evolving to meet the students' needs in a changing society.

Curriculum Philosophy from an Instructional Perspective

Instruction in Stonington Public Schools will be responsive and students will feel represented through culturally, socially, and emotionally conscious practices. It will be meaningful to students by incorporating multifaceted pedagogical approaches including inquiry, collaboration, and reflection. Instruction will provide all students opportunities to respond, equitable assessments, and positive feedback. Teachers will engage in dynamic and reflective practices to advance their craft.

Curriculum Philosophy from a Content Perspective

Content in Stonington Public Schools will be constantly adapting to reflect current and relevant information along with the state and national standards for each discipline. Through a rich, authentic, and coherent curriculum, students will learn that the past informs the future. The curriculum will be complex and will provide optimum challenges for all students with the goal of preparing knowledgeable, problem solving, productive citizens who are career and college ready and prepared for the diverse global community.

We Believe In You

1. **Convince:** Use critical thinking skills and a variety of relevant evidence to solve a problem, support a position, or present an idea.
2. **Communicate:** Use content area language clearly to convey ideas as an individual. Communicate with others in a way that facilitates a collaborative process.
3. **Consider:** Use all learning to develop innovative and/or creative options to solve challenging situations and/or problems.
4. **Connect:** Use technology to find, evaluate, create and/or share information, ethically and legally. Connect all learning to become a participative member in the social and civic community.

Vision of the Graduate

Food and Nutrition 1: Foundations

Critical Areas of Focus (Course Description)
Food and Nutrition 1: Foundations is an introduction to the world of culinary arts with a focus on food safety, basic nutrition principles, knife skills, cooking methods, introductory baking methods and career pathways while producing recipes that coincide with each method. Students will complete a Food Handler's ServSafe course and earn a certificate. This course prepares students for independent living and/or considering a career in the hospitality industry. Length ½ year, Credit ½

Pacing Guide (Semester Course)				
Quarter 1		Quarter 2		
Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
Foundations & Food Safety	Eggs & Breakfast Cookery	Stocks, Soups, & Sauces Knife Skills	Cooking Methods	Introduction to Baking
~10 classes @ 75 minutes	~7 classes @ 75 minutes	~10 classes @ 76 minutes	~4 classes @ 76 minutes	~10 classes @ 75 minutes

Unit 1

Name of Unit:	**Length of unit: (number of classes/minutes per meeting)**
Foundations & Food Safety	~10 classes @ 75 minutes

Content Standards Addressed in the Unit:

Connecticut Career and Technical Education
Family and Consumer Sciences
Culinary and Food Production

B. Food Safety and Sanitations: Demonstrate food safety and sanitation procedures.

3. Identify characteristics of major food-borne pathogens, their role in causing illness, foods involved in outbreaks, and methods of prevention.
4. Describe food service management safety and sanitation program procedures.
5. Demonstrate good personal hygiene and health procedures and report symptoms of illness.
6. Demonstrate proper purchasing, receiving, storage, and handling of both raw and prepared foods.
7. Demonstrate safe food handling and preparation techniques that prevent cross contamination from potentially hazardous foods, between raw and ready-to-eat foods, and between animal and fish sources and other food products.

C. Food Service Equipment: Demonstrate industry standards in selecting, using, and maintaining food production and food service equipment.

9. Demonstrate procedures for cleaning, sanitizing, and storing equipment, tools, serving dishes, glassware, and utensils to meet industry standards and OSHA requirements.
10. Identify a variety of equipment used for food processing, cooking, holding, storing, and serving, including hand tools and small ware.

E. Professional Food Preparation Methods and Techniques: Demonstrate professional food preparation methods and techniques for all menu categories to produce a variety of food products that meet customer needs.

15. Utilize Weight and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques.

Big Ideas:	**Essential Question(s):**
● Proper work habits are essentials to health, safety and sanitation. ● Proper knowledge and use of tools, equipment, and recipes will facilitate successful product outcomes.	● What work habits are necessary to keep food safe? ● What are the major positions and equipment in a modern, professional kitchen? ● What are the basic math calculations, components, and functions of a standard recipe?
Students will know:	**Students will be able to:**
● A foodborne-illness is a disease transmitted to people by food. ● Bacteria need six conditions to grow (FAT TOM) ● The temperature danger zone is the temperature range between 41 F and 135 F. ● The Food and Drug administration creates the FDA Food Code, which recommends regulations to keep food safe. ● The proper procedure for washing their hands. ● Cleaning removes food and other dirt from a surface. ● Sanitizing reduces pathogens on a surface to safe levels. ● Contact time, temperature, and concentration affect the effectiveness of sanitizers. ● A master cleaning schedule should identify what should be cleaned, who should clean it, when it should be cleaned, and how it should be cleaned. ● Foodservice kitchens have multiple workstations that are dedicated to a particular task.	● Demonstrate safe food handling procedures including proper sanitation ● Successfully complete a food safety exam ● Identify and describe the use of culinary tools and equipment ● Explain and follow pre and post production steps including mise en place ● Read and follow recipes ● Calculate measurement equivalents

• Mise en place is the preparation and assembly of ingredients, pans, utensils, equipment, and serving pieces needed for a particular dish or service. • Mise en place also refers to the knowledge of the recipe and all the steps needed to execute the dish correctly for quantity and quality. • A standardized recipe includes details such as the list and amounts of ingredients, the yield, equipment needed, and cooking time and temperature. • How to increase or decrease recipe yields.	

Significant tasks:

Significant task 1: The Kitchen

Students can begin by getting familiar with the kitchen/production space. An activity such as a scavenger hunt allows the students to learn the names of imperative tools and equipment and where they are housed. Next, students can learn why, when, and how the tools and equipment are used. This can be done through demonstrations, videos, and/or readings. Students should record the information in a graphic organizer of preference. A checklist that shows the imperative steps that occur for pre and post culinary production for each workstation should be discussed, especially new terms such as mise en place. This checklist should be used for every cooking experience. Finally, students should review how to read recipes and basic culinary measurements. They should practice equivalents by changing the yields of recipes.

Timeline: ~4 classes @ 75 minutes

Significant task 2: Food Safety

Since food safety is the number one priority, all students must pass a food safety exam. Servsafe is an example of such a program/exam. Students independently progress through the digital program learning safe food handling procedures through presentations, reading and quizzes. At the end of the program, successful students receive a certificate of completion.

Timeline: ~6 classes @ 75 minutes

Common Learning Experiences:

- Checklists for common routines (pre & post production)
- Opportunities to Respond- active student engagement
- Graphic Organizers
- Demonstrations, Direct Instruction, and Modeling
- Guided Practice
- Collaboration and teamwork (specific duties)
- Executive functioning (time management, organization, step sequence)
- Active discourse and problem solving
- Reflections both of self, peers, and food
- Math practices (measurement, temperature)
- Critical Thinking
- Cultural extensions
- Introduction to career profiles & readiness

Key vocabulary:

Foodborne-illness, foodborne-illness outbreak, immune system, hazard, contamination, bacteria, temperature danger zone, cross-contact, FAT TOM, food handlers, cleaning, sanitizing, cleaners, detergents, degreasers, contact time, cleaning program, chef, sous chef, *Mise en place*, recipe, standardized recipe, portion size, temperature, time, equipment, conversion chart, metric units, customary units, conversion factor, yield

Evidence of Understanding - Common Assessments

- ServSafe Assessment (certificate)
- Utensil/Equipment Quiz
- Measurement equivalent problems

Teacher notes:

- Resources:
  - *Foundations of Restaurant Management & Culinary Arts* Level 1: 2nd Edition. National Restaurant Association: Chicago, Illinois. 2018
    - Chapter 6
  - *Foundations of Restaurant Management & Culinary Arts* Level 2: 2nd Edition. National Restaurant Association: Chicago, Illinois. 2018
  - Servsafe
- Anticipated Student Misconceptions:
  - All bacteria are harmful.
  - A sharp knife is more dangerous than a dull knife.
  - There is no difference between cleaning and sanitizing.
- Differentiation Strategies:
  - Tier 1 Universal Strategies
  - Tier 2 Targeted Strategies
  - Tier 3 Intensive Strategies
- Safety Considerations:
  - Note: Each teacher will identify the safety considerations that occur in each individual activity.
  - See ACS Chemical Hygiene Plan for specific safety precautions.
  - Rules for Kitchen Safety
- Prior Knowledge:
  - Dependent on individual student experiences.
- Interdisciplinary Connections:
  - Math Skills: volume measurements, weight measurements, temperature, conversions and equivalents
  - Scientific Concepts: Safe food techniques
  - Social Justice Standards
    - Diversity.9-12.8 I respectfully express curiosity about the history and lived experiences of others and exchange ideas and beliefs in an open-minded way.

- Cultural Connections
- Social and Emotional Learning Competencies (CASEL 5)
  - Self-Awareness: self-confidence
  - Self-Management: self-motivation, organizational skills, self-discipline
  - Social Awareness: respect for others
  - Relationship Skills: communication, social engagement, teamwork
  - Responsible Decision-Making: Identifying problems, analyzing situations, evaluating, reflecting, ethical responsibility

Unit 2

Name of Unit:	**Length of unit: (number of classes/minutes per meeting)**
Eggs and Breakfast Cookery	~7 classes @ 75 minutes

Content Standards Addressed in the Unit:

Connecticut Career and Technical Education
Family and Consumer Sciences
Culinary and Food Production

D. Menu Planning: Demonstrate menu planning principles and techniques based on standardized recipes to meet customer needs.

12. Analyze food, equipment, and supplies needed for menus or recipes

E. Professional Food Preparation Methods and Techniques: Demonstrate professional food preparation methods and techniques for all menu categories to produce a variety of food products that meet customer needs.

23. Prepare breakfast meats, eggs, cereal grains, and batter products using safe handling and professional preparation techniques.

Big Ideas:	**Essential Question(s):**
● Cooking an egg properly is a foundational skill in culinary arts.	● What are the ways to properly cook an egg? ● How do you prepare various breakfast items?

Students will know:	**Students will be able to:**
● Eggs consist of the outer shell, the white (albumen), and the yolk. ● The white consists of protein and water. ● The yolk contains protein, fat, and lecithin, a natural emulsifier. The membranes that hold the egg yolk in place are called chalazae. ● Eggs are chosen by their grade (AA, A, or B) and size (ranging from peeweek, the smallest to jumbo, the largest). ● Eggs can be cooked using many different methods, including simmering, frying, poaching, and baking. ● Pancakes, crepes, waffles, and French toast are popular breakfast foods. ● Traditional breakfast meats include bacon, sausage, ham, Canadian bacon, and fish. ● Potatoes have two traditional forms for breakfast: hashed-brown and home-fried.	● Diagram the anatomy of an egg ● Explain the nutritional value of an egg ● Analyze the different sizes and grades of eggs ● Demonstrate and state the proper methods for ○ Poaching ○ Frying/Scrambling ○ Omelets ● Accurately follow and cook recipes for traditional breakfast foods

Significant tasks:

Significant task 1: Egg Anatomy & Cookery

Students can receive diagrams of the internal egg, various sizes, and grades. Using prior knowledge and predictions, they can label the pictures. Next, they can be given the correct names/descriptions, and working with a partner, they can complete the diagrams. Either through a class discussion or individual research, students can label the diagrams correctly. Discussion can occur about when and why each grade and size of egg should be used. Students can then share what they know about cracking an egg. The teacher can then model the correct way: using a separate bowl, not cracking on the bowl, how to remove a shell. Next, using a graphic organizer, students can record how to cook the three main categories of eggs: poaching, omlet, frying/scrambling. They can take

these notes from discussions and demonstrations. Students can procure the needed equipment, ingredients and mise en place and then cook each egg type. Emphasis should be placed on the techniques. After several practice attempts, students can be assessed.

Timeline: ~ 4 classes @ 75 minutes

Significant task 2: Breakfast

A class discussion can occur with students explaining their favorite breakfast items. These items can be classified into different groups such as eggs, meats, sides, batters, and breads. Students can then read recipes together, discussing the cooking techniques and ingredients, and then watch a demonstration of the cooking method. Next, groups of students can be assigned a variety of breakfast items to cook. Once all the items are cooked, a formal class meal allowing students to practice place settings and serving etiquette.

Timeline: ~ 3 classes @ 75 minutes

Common Learning Experiences:

- Checklists for common routines (pre & post production)
- Opportunities to Respond- active student engagement
- Graphic Organizers
- Demonstrations, Direct Instruction, and Modeling
- Guided Practice
- Collaboration and teamwork (specific duties)
- Executive functioning (time management, organization, step sequence)
- Active discourse and problem solving
- Reflections both of self, peers, and food
- Math practices (measurement, temperature)
- Critical Thinking
- Cultural extensions
- Introduction to career profiles & readiness

Key vocabulary:

Albumen, chalazae, coddled, ramekins, shirred eggs, poached eggs, sunny-side up, over easy basted eggs, omelets, frittatas, quiche, souffles, pooled eggs, breakfast, pancakes, crepes, waffles, french toast, hash, hashed brown potatoes, home fries

Evidence of Understanding - Common Assessments

- Egg Quiz
- Performance Based Assessment
    - Egg Cookery
    - Group: Breakfast

Teacher notes:

- Resources:
    - *Foundations of Restaurant Management & Culinary Arts* Level 1: 2nd Edition. National Restaurant Association: Chicago, Illinois. 2018
    - *Foundations of Restaurant Management & Culinary Arts* Level 2: 2nd Edition. National Restaurant Association: Chicago, Illinois. 2018
        - Chapters 2 & 4

- Anticipated Student Misconceptions:
    - It is easy to cook eggs.
    - All eggs are the same.

- Differentiation Strategies:
    - Tier 1 Universal Strategies
    - Tier 2 Targeted Strategies
    - Tier 3 Intensive Strategies

- Safety Considerations:
    - Note: Each teacher will identify the safety considerations that occur in each individual activity.
    - See ACS Chemical Hygiene Plan for specific safety precautions.
    - Rules for Kitchen Safety

- Prior Knowledge:
    - Dependent on individual student experiences
- Interdisciplinary Connections:
    - Math Skills: volume measurements, weight measurements, temperature, conversions and equivalents
    - Scientific Concepts: nutrition
    - Social Justice Standards
        - Diversity.9-12.8 I respectfully express curiosity about the history and lived experiences of others and exchange ideas and beliefs in an open-minded way.
    - Cultural Connections
    - Social and Emotional Learning Competencies (CASEL 5)
        - Self-Awareness: self-confidence
        - Self-Management: self-motivation, organizational skills, self-discipline
        - Social Awareness: respect for others
        - Relationship Skills: communication, social engagement, teamwork
        - Responsible Decision-Making: Identifying problems, analyzing situations, evaluating, reflecting, ethical responsibility

Unit 3

Name of Unit:	**Length of unit: (number of classes/minutes per meeting)**
Stocks, Soups, and Sauces (Knife Skills)	~ 10 classes @ 75 minutes

Content Standards Addressed in the Unit:

Connecticut Career and Technical Education
Family and Consumer Sciences
Culinary and Food Production

D. Menu Planning: Demonstrate menu planning principles and techniques based on standardized recipes to meet customer needs.

12. Analyze food, equipment, and supplies needed for menus or recipes

E. Professional Food Preparation Methods and Techniques: Demonstrate professional food preparation methods and techniques for all menu categories to produce a variety of food products that meet customer needs.

13. Demonstrate professional skills in safe handling of knives, tools, and equipment.
18. Prepare various stocks, soups, and sauces using safe handling and professional preparation techniques.
19. Prepare various vegetables,starches, legumes,and oils using safe handling and professional preparation techniques.

Big Ideas:	**Essential Question(s):**
● Knives are an imperative part of food service. ● Stocks, soups and sauces are the key building blocks of many dishes and an understanding of them is essential for any chef.	● Why is the type of knife and the cut used in the food service kitchen so important? ● What are the similarities and differences between stocks, soups, and sauces?

Students will know:	**Students will be able to:**
● The two main parts of a knife are the blade and the handle. ● Honing is the regular maintenance required to keep knives sharp and in the best shape ● The proper way to hold and use a knife ● The names of common knives and their uses ● The eleven classical knife cuts ● Stocks are often referred to as the cook's "building blocks" ● Stocks contain four essential parts: a major flavoring ingredient, liquid, mirepoix, and aromatics ● A stock is a flavorful liquid made by gently simmering bones and/or vegetables. ● Flavor, color, body, and clarity determine the quality of stock. ● Sauces add flavor, moisture, and visual appeal to another dish. ● There are five classical mother sauces: bechamel, veloute, brown, tomato, and hollandaise. ● Thickenters such as roux, beurre manie, slurry, and liaison add richness and body to sauces. ● There are other sauces that are not classified as mother sauces, such as compound butters, coulis, salsa, and jus lie. ● Clear soups and thick soups are the two basic kinds of soup. ● Clear soups include flavored stocks, broths, and consommes. ● Thick soups include cream and puree soups.	● List the four essential parts of stock ● Describe the different types of stock ● Identify the primary ingredients in each of the five mother sauces ● Describe the difference between clear soups and thick soups

Significant tasks:

Foundations of Restaurant Management & Culinary Arts

Significant task 1: Knife Skills

First students can learn the anatomy of a knife. They could complete a diagram and label all the components. Next, they can work together to match pictures of various knives, names, and purposes. A class discussion can occur about each type and they can compare their original answers. They should take notes about each knife in a graphic organizer of choice. A demonstration can occur about the proper holding technique and imperative knife safety. Students can then learn proper foundational knife cuts, including how to break down different foods. This could be done by using a substance like play dough first before moving on to actual food. Another idea is to use carrots, celery, and onion which will be used for a mirepoix in a future task. Students should practice making dimensional cuts (julienne/batonnet), and slice and dice.

Timeline: ~ 2 classes @ 75 minutes

Significant task 2: Stocks

Students should understand the four main components of all stock. They could first hypothesize what they could be based on the titles: aromatics, liquid, mirepoix, main flavoring ingredient. Students should learn the difference between a bouquet and a sachet for the aromatics and what could be used. They should also learn the percentages of onion, celery, and carrots in a mirepoix (typically 50%, 25%, 25%). Discussion should occur about the fact that what you do with each component impacts the flavor and color. Each group of students can then make a stock that will be used for their soup in a future task.

Timeline: ~2 classes @ 75 minutes

Significant task 3: Sauces

Students can view a list of the five mother sauces and share what they know or think about each (bechamel, veloute, brown, tomato sauce, hollandaise). After a discussion and note-taking of each, students can make a bechamel and a tomato sauce. For the

bechamel, they can make mornay and roux (macaroni & cheese). For the tomato sauce, students can learn how to concasse or peel a tomato, before adding a mirepoix, oil, and herbs. Both sauces can be served over pasta. The class can sit in a formal setting to practice place setting and serving etiquette.

Timeline: ~ 2 classes @ 75 minutes

Significant task 4: Soups

Students can begin by naming all the soups they know. As they say each one, it can be put into one of two unlabeled columns. Students can predict what the two columns mean. The columns can later be labeled thick and clear if they were not guessed. Through direct instruction and demonstration, students should learn three major components; the temperature of the pot, the concept of an oil's smoke point (builds from breakfast cookery), and sweating vs. browning, which creates flavor in the liquid. Kitchen groups can be assigned different soups to make such as Thick: clam chowder and potato leek, and Clear: chicken noodle, minestrone, french onion. Groups should review the recipes and use the pre/post production checklists to prepare for cooking. The stocks from the task above can be used. The class should serve and eat together.

Timeline: ~ 2 classes @ 75 minutes

Common Learning Experiences:

- Checklists for common routines (pre & post production)
- Opportunities to Respond- active student engagement
- Graphic Organizers
- Demonstrations, Direct Instruction, and Modeling
- Guided Practice
- Collaboration and teamwork (specific duties)
- Executive functioning (time management, organization, step sequence)
- Active discourse and problem solving
- Reflections both of self, peers, and food
- Math practices (measurement, temperature)
- Critical Thinking

- Cultural extensions
- Introduction to career profiles & readiness

Key vocabulary:

Blade, forged blade, stamped blade, honing, steel, sharpening stone, guiding hand, spine, butt, tang, tip, cutting edge, tip, heel, bolster, scales, dice, brunoise, julienne, batonnet, rondelle, chiffonade, diagonal, paysanne, tourneMirepoix, aromatics, bouquet gami, sachet, stock, blanching, brown, sweating, sauce, saucier, roux, mother sauces, small sauces, demi-glace, reduction, beurre manie, slurry, temper, writing method, clear soups, thick soups, oignon brule, raft, clarified, puree soups, chowders

Evidence of Understanding - Common Assessments

- Types of knives & their uses quiz
- Stock, Sauce, & Soup quiz
- Performance Based Assessments
    - Knife Cuts
    - Stock
    - Sauces
    - Soups

Teacher notes:

- Resources:
    - *Foundations of Restaurant Management & Culinary Arts* Level 1: 2nd Edition. National Restaurant Association: Chicago, Illinois. 2018
        - Level 1. Chapters 12 & 17
    - *Foundations of Restaurant Management & Culinary Arts* Level 2: 2nd Edition. National Restaurant Association: Chicago, Illinois. 2018

- Anticipated Student Misconceptions:
    - Stock, sauces, and soups are all the same.
    - Stock and broth are the same.
    - Knife cuts are just for show.

- Differentiation Strategies:
  - Tier 1 Universal Strategies
  - Tier 2 Targeted Strategies
  - Tier 3 Intensive Strategies
- Safety Considerations:
  - Note: Each teacher will identify the safety considerations that occur in each individual activity.
  - See ACS Chemical Hygiene Plan for specific safety precautions.
  - Rules for Kitchen Safety
- Prior Knowledge:
  - Dependent on individual student experiences
- Interdisciplinary Connections:
  - Math Skills: volume measurements, weight measurements, temperature, conversions and equivalents
  - Scientific Concepts: Chemical changes
  - Social Justice Standards
    - Diversity.9-12.8 I respectfully express curiosity about the history and lived experiences of others and exchange ideas and beliefs in an open-minded way.
  - Cultural Connections
  - Social and Emotional Learning Competencies (CASEL 5)
    - Self-Awareness: self-confidence
    - Self-Management: self-motivation, organizational skills, self-discipline
    - Social Awareness: respect for others
    - Relationship Skills: communication, social engagement, teamwork
    - Responsible Decision-Making: Identifying problems, analyzing situations, evaluating, reflecting, ethical responsibility

Unit 4

Name of Unit:	**Length of unit: (number of classes/minutes per meeting)**
Cooking Methods	~4 classes @ 76 minutes

Content Standards Addressed in the Unit:

Connecticut Career and Technical Education
Family and Consumer Sciences
Culinary and Food Production

D. Menu Planning: Demonstrate menu planning principles and techniques based on standardized recipes to meet customer needs.

12. Analyze food, equipment, and supplies needed for menus or recipes

E. Professional Food Preparation Methods and Techniques: Demonstrate professional food preparation methods and techniques for all menu categories to produce a variety of food products that meet customer needs.

14. Demonstrate professional skills for a variety of cooking methods including roasting, broiling, smoking, sauteing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies.

Big Ideas:	**Essential Question(s):**
● The three general types of cooking methods, dry-heat, moist-heat, and combination, bring out the flavor and tenderness of specific dishes and can reflect cultural and regional preferences.	● What are the methods of cooking and what is the product of each?

Students will know:	**Students will be able to:**
● Heat is transferred through food through conduction, convection, and radiation ● The types of dry-heat cooking methods ○ Broiling, grilling, and roasting ● Dry-heat cooking methods with fat and oil include sauteing, pan-frying, stir-frying and deep-frying ● Foods that are best suited for dry-heat ● Moist-heat cooking produces food that is delicately flavored and moist. ● Moist-cooking methods ○ Simmering, poaching, blanching, and steaming ● Foods that are best suited for moist-cooking ● Combination cooking uses techniques from both dry-heat and moist-heat cooking ● Combination-heat cooking methods ○ Braising and stewing ● Foods that are best suited for combination-heat ● Sous vide and microwave cooking techniques ● How to determine when food is done cooking ○ Texture and temperature	● Compare and contrast heat transfers through food (conduction, convection, radiation) ● Determine the cooking method that is best suited for several foods ● Cook foods with dry-heat, moist-heat, and combination cooking methods ● Measure the internal temperatures of foods and determine doneness

Significant tasks:

Significant task 1: Cooking Methods

After learning the cooking method vocabulary, students can participate in an activity such as a carousel, where they rotate through the stations. At each station, students write everything they think it means based on their prior knowledge and vocabulary words (1- heat transfer: conduction, convection, radiation, 2- baking vs roasting, 3- grilling vs broiling, 4- pan fry vs deep fry, 5- braise vs stew).

Timeline: ~3 classes @ 75 minutes

Significant task 2: Performance Task

After a demonstration of two full meals, students will be assigned a meal to cook. The meal options should represent a variety of cooking methods. Chicken parmesan and Stir Fry are good examples (knife skills, grain cookery, breading, shallow fry, broiling). Once all the items are cooked, a formal class meal allowing students to practice place settings and serving etiquette.

Timeline: ~ 3 classes @ 75 minutes

Common Learning Experiences:

- Checklists for common routines (pre & post production)
- Opportunities to Respond- active student engagement
- Graphic Organizers
- Demonstrations, Direct Instruction, and Modeling
- Guided Practice
- Collaboration and teamwork (specific duties)
- Executive functioning (time management, organization, step sequence)
- Active discourse and problem solving
- Reflections both of self, peers, and food
- Math practices (measurement, temperature)
- Critical Thinking
- Cultural extensions
- Introduction to career profiles & readiness

Key vocabulary:

Conduction, convection, radiation, infrared heat, broiling, grilling, roasting, baking, griddling, sauteing, sear, stir-frying, pan-fry,

deep-fry, batter, breading, float, swimming method, recovery time, smoking point, simmering, poaching, shallow poaching, paupiettes, cuisson, blanching, parcooking, shocking steaming, combination cooking, braising, pot roasting, stewing, sous vide, carryover cooking

Evidence of Understanding - Common Assessments

- Methods of Cooking quiz
- Performance Based Assessment
    - Methods of Cooking

Teacher notes:

- Resources:
    - *Foundations of Restaurant Management & Culinary Arts* Level 1: 2nd Edition. National Restaurant Association: Chicago, Illinois. 2018
        - Chapter 19
    - *Foundations of Restaurant Management & Culinary Arts* Level 2: 2nd Edition. National Restaurant Association: Chicago, Illinois. 2018

- Anticipated Student Misconceptions:
    - The ingredients in baked goods are always the same.
    - There is no difference between baking soda and baking powder.
    - How ingredients are combined will not change the end product.

- Differentiation Strategies:
    - Tier 1 Universal Strategies
    - Tier 2 Targeted Strategies
    - Tier 3 Intensive Strategies

- Safety Considerations:
    - Note: Each teacher will identify the safety considerations that occur in each individual activity.
    - See ACS Chemical Hygiene Plan for specific safety precautions.
    - Rules for Kitchen Safety

- Prior Knowledge:
    - Dependent on individual student experiences
- Interdisciplinary Connections:
    - Math Skills: volume measurements, weight measurements, temperature, conversions and equivalents
    - Scientific Concepts: Chemical changes
    - Social Justice Standards
        - Diversity.9-12.8 I respectfully express curiosity about the history and lived experiences of others and exchange ideas and beliefs in an open-minded way.
    - Cultural Connections
    - Social and Emotional Learning Competencies (CASEL 5)
        - Self-Awareness: self-confidence
        - Self-Management: self-motivation, organizational skills, self-discipline
        - Social Awareness: respect for others
        - Relationship Skills: communication, social engagement, teamwork
        - Responsible Decision-Making: Identifying problems, analyzing situations, evaluating, reflecting, ethical responsibility

Unit 5

Name of Unit:	**Length of unit: (number of classes/minutes per meeting)**
Introduction to Baking	~10 classes @ 76 minutes

Content Standards Addressed in the Unit:

Connecticut Career and Technical Education
Family and Consumer Sciences
Culinary and Food Production

D. Menu Planning: Demonstrate menu planning principles and techniques based on standardized recipes to meet customer needs.

12. Analyze food, equipment, and supplies needed for menus or recipes

E. Professional Food Preparation Methods and Techniques: Demonstrate professional food preparation methods and techniques for all menu categories to produce a variety of food products that meet customer needs.

22. Prepare breads, baked goods, and desserts using safe handling and professional preparation techniques.

Big Ideas:	**Essential Question(s):**
● Nearly all bakery products are prepared using a common list of ingredients that fall into eight categories and three methods.	● What is the function of baker's ingredients? ● What are the methods in making cookies and quick breads?

Students will know:	**Students will be able to:**
● The eight main categories of ingredients (Baker's Ingredients): strengtheners, shortening, sweeteners, leaveners, thickeners, flavorings, liquids, and additives. ● Flour is a main ingredient used in baking ● Standardized recipes, or formulas, proportion ingredients in percentages. ● Flour always has a percentage of 100% and the other ingredients are calculated in relation to the flour. ● The seven makeup methods for cookies are bagged, bar, dropped, icebox, molded, rolled, and sheet ● Cookies are best when they are baked in a convection oven because of their high sugar content. ● The three basic methods for preparing quick breads are the creaming method, the muffin method, and the biscuit method.	● Name and describe the functions of the Baker's ingredients. ● Calculate Baker's ingredients ● Compare and contrast the three basic methods of quick breads ● Bake quick breads using the three basic methods

Significant tasks:

Significant task 1: Baker's Ingredients

Students can view the 8 baker's ingredient categories and predict some examples of each (strengthen, fats/shortenings, sweeteners, leaveners, thickeners, flavorings, liquids, additives). Using a graphic organizer, specific examples of each category can be recorded. Students should know each category and what its examples do to the baked product. If time permits, students can perform an experiment using different amounts of bakers ingredients(be sure to control the experiment by only changing one variable, such as the leavener) to witness the differences each makes.

Timeline: ~2 classes @ 75 minutes

Significant task 2: Quick Bread Methods

Students can discuss the different types of baked goods that they know. They can then research the three methods (creaming-cookies, muffin, biscuit) for making quick breads. One day should be spent on each method, beginning with a demonstration (direct instruction) and then practice. For cookies, production stations can be assigned different types, such as dropped, sheet, and icebox. As students make each method, they should compare the similarities and differences of the techniques.

Timeline: ~ 3 classes @ 75 minutes

Community Baking Outreach- Depending on the season, students can make baked goods for an event such as pies for the Veteran's Dinner or Mother's Day, depending on the semester/time.

Suggested Culminating Activity: Chopped

Students can create a recipe highlighting the assigned cooking method(s) and 3 secret ingredients. Additional methods and ingredients may also be used to present a complete dish.

- Day 1 (before exam week) - 75 minutes
    - Individually
        - Describe the method assigned
        - Create a recipe highlighting the method and ingredients using the template provided
        - List all equipment needed
        - Create a detailed method of preparation
- Day 2 (during exam week) - 90 minutes
    - Within Kitchen Groups
        - 20 minutes - discuss individual recipes and choose 1 or adapt each to formulate 1 plate
        - 40 minutes - prepare
        - 10 minutes - plate and present
        - 10 minutes - clean
        - 10 minutes - taste, discuss and reflect

Examples:
1- Method: Poach. Secret Ingredients: Eggs, Black Beans, White Rice

2- Method: Shallow Fry. Secret Ingredients: Zucchini, Mozzarella, Tomatoes
3- Method: Pan Fry & Bake. Secret Ingredients: Eggs, Potatoes, Bell Peppers
4- Method: Saute/Stir-Fry. Secret Ingredients: Rice noodles, Cauliflower, Honey
5- Method: Blanch & Shock. Secret Ingredients: Asparagus, Garlic, Cream Cheese

Common Learning Experiences:

- Checklists for common routines (pre & post production)
- Opportunities to Respond- active student engagement
- Graphic Organizers
- Demonstrations, Direct Instruction, and Modeling
- Guided Practice
- Collaboration and teamwork (specific duties)
- Executive functioning (time management, organization, step sequence)
- Active discourse and problem solving
- Reflections both of self, peers, and food
- Math practices (measurement, temperature)
- Critical Thinking
- Cultural extensions
- Introduction to career profiles & readiness

Key vocabulary:

Strengtheners, gluten, types of flour, fats/shortenings, sweeteners, caramelization, leaveners, thickeners, flavorings, extracts, liquids, additives, creaming method, foaming method, ferments, formulas, baker's percentages, cookie, types of cookies, quick breads, muffin method, biscuit method

Evidence of Understanding - Common Assessments

- Baker's Ingredients Quiz
- Performance Based Assessment
    - Creaming Method (cookies)

- Muffin Method
- Biscuit Method

- Culminating Activity: Chopped (rubric)

Teacher notes:

- Resources:
  - *Foundations of Restaurant Management & Culinary Arts* Level 1: 2nd Edition. National Restaurant Association: Chicago, Illinois. 2018
    - Chapter 18
  - *Foundations of Restaurant Management & Culinary Arts* Level 2: 2nd Edition. National Restaurant Association: Chicago, Illinois. 2018

- Anticipated Student Misconceptions:
  - All foods can be cooked in all ways.
  - How ingredients are combined and how much heat is applied will not change the end product.

- Differentiation Strategies:
  - Tier 1 Universal Strategies
  - Tier 2 Targeted Strategies
  - Tier 3 Intensive Strategies

- Safety Considerations:
  - Note: Each teacher will identify the safety considerations that occur in each individual activity.
  - See ACS Chemical Hygiene Plan for specific safety precautions.
  - Rules for Kitchen Safety

- Prior Knowledge:
  - Dependent on individual student experiences

- Interdisciplinary Connections:
  - Math Skills: volume measurements, weight measurements, temperature, conversions and equivalents
  - Scientific Concepts: Chemical changes
  - Social Justice Standards

- Diversity.9-12.8 I respectfully express curiosity about the history and lived experiences of others and exchange ideas and beliefs in an open-minded way.
- Cultural Connections
- Social and Emotional Learning Competencies (CASEL 5)
  - Self-Awareness: self-confidence
  - Self-Management: self-motivation, organizational skills, self-discipline
  - Social Awareness: respect for others
  - Relationship Skills: communication, social engagement, teamwork
  - Responsible Decision-Making: Identifying problems, analyzing situations, evaluating, reflecting, ethical responsibility