Board of Education

5 Minortown Road ~ Woodbury, CT 06798
www.ctreg14.org

Mission: The mission of Connecticut Region 14 Schools is to educate all students to their highest level of academic potential and to teach them the skills and knowledge to become capable, creative, collaborative lifelong learners and responsible members of the world community.

Board of Education Goals:
Academic Performance - The district will strive to improve academic performance for all students on multiple assessment indicators and the staff will be committed to continuous improvement.
Communication - Region 14 will develop partnerships with all stakeholders in the school community to highlight the exemplary programs the district offers
Safety - Region 14 will provide safe and secure facilities equipped with technology, enabling a 21st century learning environment that supports the values of the district
Budget - Region 14 will prepare a budget that meets the needs of every student and communicates the needs and priorities of Region 14 in a clear and concise manner.

A G E N D A
Special Meeting
Curriculum Committee Meeting
Thursday, July 31, 2025; 12:30 p.m.
Central Office Conference Room

I. Call to order

II. Curriculum Documents for Approval
- A. Culinary Arts I
- B. Culinary Arts II
- C. Farm to Table
- D. Leadership Development
- E. Animal Assisted Therapy
- F. 7th Grade Science

III. Adjourn

CULINARY ARTS I CURRICULUM



Grade Level(s): 9-12

Curriculum Author(s): John Dominello

Course Description: This introductory course provides students with foundational culinary skills that emphasize kitchen safety and sanitation, weights and measurements, reading recipes, proper use of equipment, knife skills, and the principles of baking as they work collaboratively in lab settings. Students will focus on the practical application of these skills and competencies while preparing a wide range of foods. Kitchen labs include loaf breads, muffins, biscuits, pies, tarts, cookies, pizza dough, pasta and soups. Real-world applications and Vision of a Learner attributes guide instructional design, preparing students for kitchen skills, culinary careers and lifelong wellness.

Year At A Glance			
Unit Title	**Overarching Essential Question**	**Overarching Enduring Understanding**	**Vision of A Learner "I Can" Statements**
Introduction to Culinary Arts	How does understanding the culinary industry and safety standards help us prepare food safely and efficiently?	Understanding food safety, sanitation, and the culinary industry is essential for working in any food-related career or home kitchen.	TI1(9-12), CCE1(9-12), DE1(9-12), AA3(9-12)
Recipes, Measurements, and Cooking Techniques	Why is precision important in the culinary world?	Accurate measurements and proper techniques are essential for consistency, safety, and success in food preparation.	TCC2(9-12), CCE4(9-12), TI3(9-12)
Small Equipment and Knife Skills	How do tools and skills impact the final product?	Proper use of kitchen tools and techniques ensures safety and quality in food production.	P1(9-12), AA1(9-12), TCC4(9-12)
Quick Breads	How do ingredients and techniques affect baked goods?	The function of ingredients and methods of preparation directly influence texture, flavor, and presentation.	TCC3(9-12), TI2(9-12), CCE2(9-12)
Pie and Tart Dough	What makes pie dough, tart dough and pastry successful?	Understanding the science of fats, flour, and mixing methods creates successful baked products.	P3(9-12), TCC1(9-12), AA2(9-12)
Cookies	How do variables impact baking outcomes?	Mastery of cookie types and mixing techniques produces consistent, high-quality results.	TI4(9-12), CCE3(9-12), TCC3(9-12)
Pasta and Sauces	How do culture, creativity, and technique combine in successful pasta preparation?	Pasta and sauce reflect cultural traditions, personal creativity, and practiced culinary technique.	DE4(9-12), TCC4(9-12), CCE1(9-12)

Unit 1 - Introduction to Culinary Arts

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

CONNECTICUT CAREER & TECHNICAL EDUCATION PERFORMANCE STANDARDS & COMPETENCIES

A. Family and Consumer Science Skills: Develop a common core of skills related to Family and Consumer Science Education.
1. Analyze ways in which individuals and families manage resources to meet goals related to food acquisition, production, and nutrition.

B. Nutrition and Wellness Practices: Analyze factors that influence nutrition and wellness practices across the life span.
3. Describe the impact of global and local events and conditions on the cost and availability of foods.

C. Nutritional Needs: Evaluate the nutritional needs of individuals and families in relation to health and wellness across the life span.
6. Describe the impact of food and diet fads, food addictions, and eating disorders on wellness.
7. Evaluate sources of food and nutrition information, including food labels, related to health and wellness.

D. Acquisition, Handling, and Use of Foods: Demonstrate the ability to acquire, handle, and use foods to meet nutrition and wellness needs of individuals and families across the life span.
8. Demonstrate the ability to select, store, prepare, and serve nutritious foods.
9. Describe principles to maximize nutrient retention in prepared foods.

E. Food Safety: Evaluate factors that affect food safety, from production through consumption.
11. Determine conditions and practices that promote safe food handling, production and consumption.
12. Identify characteristics of major food borne pathogens, their role in causing illness, foods involved in outbreaks, and methods of prevention.
13. Describe food borne illness as a health issue for individuals and families.

F. Career Paths: Analyze career paths within hospitality, food production and services, and food science.
14. Determine education and training requirements and opportunities for career paths in food production and services.
15. Identify opportunities for employment.

G. Safety Issues: Demonstrate procedures applied to safety issues.
16. Demonstrate procedures applied to safety issues.
17. Demonstrate skills in safe handling of knives, tools, and equipment.
18. Examine procedures for safe and secure storage for equipment and tools.

H. Food Safety and Sanitation: Demonstrate food safety and sanitation procedures.

19. Describe and practice good personal hygiene/health procedures, and report symptoms of illness.
20. Explain and demonstrate methods for properly handling and storing both raw and prepared foods.
21. Explain and demonstrate techniques for food handling and preparation that prevent cross contamination between raw, cooked, and ready-to-eat foods and between animal or fish sources and other food products.
22. Demonstrate procedures for cleaning and sanitizing small equipment, serving dishes, glassware, and utensils.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)

TI1(9-12): I can implement a realistic plan and adapt when necessary to achieve my goals.
CCE1(9-12): I can initiate discussions with my peers and teachers about a variety of topics, respecting differing viewpoints, actively listening to others, and responding thoughtfully with peer-reviewed evidence that is free of bias.
DE1(9-12): I can acknowledge, process, and respond appropriately to others' comments and perspectives.
AA3(9-12): I can adjust my expectations and behaviors to succeed in a changing and unpredictable environment.

Understandings: Students will understand that…	**Essential Questions:**
● Culinary arts blend science, creativity, and safety. ● Food safety and sanitation are essential for public health. ● Understanding the industry helps students explore career opportunities.	1. Is culinary an art or a science? 2. What do we need to know before we cook? 3. How does food safety impact us at home and in industry?
Students will know…	**Students will be able to…**
● Industry roles, trends, and kitchen organization. ● Sanitation principles and sources of contamination. ● Preventive safety practices and hygiene standards.	● Identify career paths in culinary arts. ● Understand the roots of Culinary Arts. ● Evaluate why we cook our food. ● Demonstrate safety and sanitation protocols. ● Prevent kitchen hazards and foodborne illness.

Key Vocabulary: Brigade system, contamination, foodborne illness/foodborne outbreak, cross-contamination, danger zone, sanitation, safety, mise en place, clean/sanitary

Assessment Evidence

Performance Tasks: Summative: Sanitation case study. They are a Health Inspector and need to evaluate a restaurant kitchen. Interim: Safety assessment group project. They are the chef of a restaurant and need to train staff regarding proper kitchen and safety standards.	**Other Evidence:** Formative: Pre-test to evaluate level of understanding of prior knowledge. Interim: Cooking lab to assess their ability to translate kitchen sanitation/safety and teamwork to a hands-on lab. Formative: Group article analysis ("Dirty Kitchens")

Learning Plan

- Demonstration table schema activators and class discussion CCE1(9-12)
- Introduction to kitchen roles and trends TI1(9-12)
- ServeSafe food sanitation and safety video and study guides AA3(9-12)
- Proper handwashing, 3-bay sink, and hazard procedures TI1(9-12)
- Safety demonstrations, fire prevention activities and discussion DE1(9-12)

Teacher Resources: The Culinary Professional text - ServSafe materials and videos - CIA instructional videos - Other resources will be added as needed to accommodate current industry trends.

Unit 2 - Recipes, Measurements, and Cooking Techniques

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

CONNECTICUT CAREER & TECHNICAL EDUCATION PERFORMANCE STANDARDS & COMPETENCIES

C. Food Service Equipment: Demonstrate industry standards in selecting,using, and maintaining food production and food service equipment.
8. Operate and maintain tools and equipment following safety procedures and OSHA requirements.
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 smallwares.

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.

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.
14. Demonstrate professional skills for a variety of cooking methods including roasting, broiling, smoking, grilling, sautéing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies.
15. Utilize weight and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques.
16. Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding a variety of foods.
22. Prepare breads, baked goods, and desserts using safe handling and professional preparation techniques.
23. Prepare breakfast meats, eggs, cereal grains, and batter products using safe handling and professional preparation techniques.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)
TCC2(9-12): I can evaluate evidence from multiple perspectives, and recognize their limitations and implications, in order to justify new conclusions.
CCE4(9-12): I can communicate and express my understanding in an authentic, respectful and relevant way, using the most effective mode of expression.
TI3(9-12): I can formulate and investigate probing questions to further my learning.

Understandings: Students will understand that… ● Standardized recipes ensure consistency. ● Precise measurement prevents culinary failure. ● Cooking techniques impact safety and taste.	**Essential Questions:** ● Why do we need to follow a recipe? ● Is all measuring equipment the same? ● What do cooking terms/techniques mean?
Students will know… ● Parts of a standardized recipe ● How to properly measure using the appropriate equipment for a specific task. ● Measurement conversions and cooking terms ● Basic cooking techniques (bake, saute, sweat, etc.)	**Students will be able to...** ● Scale and follow recipes accurately ● Convert measurements using different equipment ● Demonstrate basic cooking methods
Key Vocabulary: Mise en place, yield, portion size, bake, measure, scale, tare weight, technique , dry measurements, liquid measurements	
Assessment Evidence	
Performance Tasks: Summative: Chocolate chip cookie kitchen labs comparing two types of recipes	**Other Evidence:** Interim: Assessment on culinary techniques, culinary terms, recipe reading and scaling.
Learning Plan	
● Demonstration and practice of measuring ingredients TI3(9-12) ● Recipe breakdown exercises TCC2(9-12) ● Scaling worksheets TI3(9-12) ● Culinary math and technique demos CCE4(9-12) ● Cooking labs and comparison exercise TCC2(9-12)	
Teacher Resources: The Culinary Professional text - Google Slideshow - Internet recipe calculator - Other resources will be added as needed to accommodate current industry trends.	

Unit 3 - Small Equipment and Knife Skills

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

G. Safety Issues: Demonstrate procedures applied to safety issues.
16. Demonstrate procedures applied to safety issues.
17. Demonstrate skills in safe handling of knives, tools, and equipment.
18. Examine procedures for safe and secure storage for equipment and tools.

H. Food Safety and Sanitation: Demonstrate food safety and sanitation procedures.
22. Demonstrate procedures for cleaning and sanitizing small equipment, serving dishes, glassware, and utensils.

I. Food Production Equipment: Demonstrate selecting, using, and maintaining food production equipment.
23. Describe and demonstrate techniques for operating tools and equipment following safety procedures.
24. Describe and demonstrate the process for maintaining tools and equipment following safety procedures.
25. Describe and demonstrate the proper procedures for storing equipment and tools.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)
P1(9-12): I can self-reflect and seek feedback to build upon my strengths, apply those strengths to overcome obstacles, and share my strategies with others.
AA1(9-12): I can evaluate different approaches and justify the best pathway to success.
TCC4(9-12): I can integrate my learning to adapt to experiences in the classroom, career and life.

Understandings: Students will understand that…	**Essential Questions:**
• Each tool has a specific culinary purpose. • Knife safety and care prevent accidents. • Quality knife skills improve food preparation.	• Is it necessary to use the right tool for the job? • Are all knives equal? • How do knife cuts affect a recipe? • Can I substitute one piece of equipment for another?
Students will know…	**Students will be able to…**
• Names and uses of tools and knives • Knife types, cuts, and safety measures	• Identify and use common kitchen tools • Demonstrate safe and accurate knife cuts

	• Maintain and store tools properly
Key Vocabulary: Small dice, mince, rough chop, julienne, chiffonade, chef's knife, paring knife, equipment	
Assessment Evidence	
Performance Tasks: Interim: Equipment ID written test Summative: Knife skills lab (Minestrone soup)	**Other Evidence:** Formative: Zucchini bread lab using various tools Formative: Knife safety quiz
Learning Plan	
Learning Plan: • Knife skills video and safety demonstrations P1(9-12) • Guided knife cut demonstrations TCC4(9-12) • Student demonstrations TCC4(9-12) • Tool ID scavenger hunt and study guides AA1(9-12) • Group cooking labs TCC4(9-12)	
Teacher Resources: Knife skills videos - The Culinary Professional textbook - Kitchen equipment - Other resources will be added as needed to accommodate current industry trends.	

Unit 4 - Quick Breads

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

J. Planning Menu Items: Demonstrate planning menu items based on standardized recipes to meet customer needs.
- 26. Describe and apply menu planning principles to develop, adjust, and modify recipes and menus.
- 27. Analyze food, equipment, and supplies needed for menus.

K. Food Preparation: Demonstrate preparation for all menu categories to produce a variety of food products.
- 28. Describe and demonstrate a variety of cooking methods such as roasting, baking, broiling, smoking, grilling, sautéing, frying, deep frying, braising, stewing, poaching, steaming, and convection.
- 29. Describe the fundamentals of time and temperature as they relate to cooking, cooling, and reheating of a variety of foods.
- 34. Describe and demonstrate the process for preparing baked goods and desserts.
- 35. Describe and demonstrate the process for preparing eggs, grains, and batter products.
- 36. Describe and demonstrate techniques for food presentation.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)
TCC3(9-12): I can integrate relevant information to produce multiple valid solutions.
TI2(9-12): I can evaluate my objectives and a variety of credible resources to find the best solutions for any challenge.
CCE2(9-12): I can give and receive actionable and relevant feedback with openness to be able to determine meaningful revisions for success.

Understandings: Students will understand that…

- Ingredients and techniques affect rise and texture.
- Mixing methods influence structure.
- Presentation adds to culinary appeal.

Essential Questions:

- What makes a quick bread quick?
- Are all leavening agents the same?
- How do we enhance presentation?

Students will know…

- Ingredient functions and mixing methods
- Types of chemical leaveners
- The differences between chemical and organic leaveners

Students will be able to…

- Prepare muffins, loaf breads and biscuits using the appropriate methods
- Garnish baked goods effectively

Key Vocabulary: Creaming method, well method, biscuit/rubbed dough method, leavening agent, baking powder, baking soda, yeast, folding, laminating	
Assessment Evidence	
Performance Tasks: Summative: Written group assessment, Bakery Case Study Formative: Oral presentation on learned skills to date	**Other Evidence:** Interim and Formative: Labs (muffins, loaf breads and biscuits) Formative: Written quiz on quick breads
Learning Plan	
Learning Plan: ● Demonstration display and discussion of leavening agents TCC3(9-12) ● Ingredient experiments (baking powder vs. baking soda vs. yeast TI2(9-12) ● Group presentation planning CCE2(9-12) ● Modeling demonstrations TCC3(9-12) ● Group kitchen labs CCE2(9-12)	
Teacher Resources: Google slides and visual aids - Quick bread troubleshooting charts - The Culinary Professional text - Instructional videos - Other resources will be added as needed to accommodate current industry trends.	

Unit 5 - Pie and Tart Dough

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

J. Planning Menu Items: Demonstrate planning menu items based on standardized recipes to meet customer needs.
- 26. Describe and apply menu planning principles to develop, adjust, and modify recipes and menus.
- 27. Analyze food, equipment, and supplies needed for menus.

K. Food Preparation: Demonstrate preparation for all menu categories to produce a variety of food products.
- 28. Describe and demonstrate a variety of cooking methods such as roasting, baking, broiling, smoking, grilling, sautéing, frying, deep frying, braising, stewing, poaching, steaming, and convection.
- 29. Describe the fundamentals of time and temperature as they relate to cooking, cooling, and reheating of a variety of foods.
- 34. Describe and demonstrate the process for preparing baked goods and desserts.
- 35. Describe and demonstrate the process for preparing eggs, grains, and batter products.
- 36. Describe and demonstrate techniques for food presentation.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)
P3(9-12): I can accept constructive feedback and use setbacks to adjust my learning journey in order to reach my goals.
TCC1(9-12): I can ask purposeful, insightful questions to find a variety of innovative solutions.
AA2(9-12): I can assess my past successes and mistakes to change my approach.
CCE3(9-12): I can show initiative in prompting group discourse and fostering collaboration among others, providing actionable feedback, and working with others to solve problems and/or design products.

Understandings: Students will understand that…

- Dough type, fat choice and temperature affect texture.
- Pastry mixing requires precision.
- Baking is both technical and creative.

Essential Questions:

- Can pie dough be used for a tart?
- Can tart dough be used for a pie?
- How do we balance flakiness and tenderness?
- Why does technique matter in baking?
- How does gluten affect dough?

Students will know…

- Types of pie doughs and tart doughs
- The role of fat and gluten

Students will be able to…

- Make flaky and mealy pie doughs and tart doughs
- Assemble and bake pies and tarts

	• Practice blind baking
Key Vocabulary: Flaky dough, mealy dough, tart dough, gluten, dock, crimp, blind baking, rubbed dough method	
Assessment Evidence	
Performance Tasks: Summative: Apple pie lab (flaky dough) Interim: Chocolate tart dough lab(tart dough)	**Other Evidence:** Formative: Pie and tart written assessment Formative: Bakery case study
Learning Plan	
Learning Plan: • Fat comparison activity (shortening vs. butter) TCC1(9-12) • Rolling and shaping demonstration P3(9-12) • Pie crust troubleshooting stations AA2(9-12) • Crust comparison activity (flaky vs tart) TCC1(9-12) • Kitchen labs CCE3(9-12)	
Teacher Resources: The Culinary Professional text, Google slides and Instructional videos - Other resources will be added as needed to accommodate current industry trends.	

Unit 6 - Cookies

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

J. Planning Menu Items: Demonstrate planning menu items based on standardized recipes to meet customer needs.
- 26. Describe and apply menu planning principles to develop, adjust, and modify recipes and menus.
- 27. Analyze food, equipment, and supplies needed for menus.

K. Food Preparation: Demonstrate preparation for all menu categories to produce a variety of food products.
- 28. Describe and demonstrate a variety of cooking methods such as roasting, baking, broiling, smoking, grilling, sautéing, frying, deep frying, braising, stewing, poaching, steaming, and convection.
- 29. Describe the fundamentals of time and temperature as they relate to cooking, cooling, and reheating of a variety of foods.
- 34. Describe and demonstrate the process for preparing baked goods and desserts.
- 35. Describe and demonstrate the process for preparing eggs, grains, and batter products.
- 36. Describe and demonstrate techniques for food presentation.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)
TI4(9-12): I can apply my strengths and anticipate challenges to reach my current and future goals.
CCE3(9-12): I can show initiative in prompting group discourse and fostering collaboration among others, providing actionable feedback, and working with others to solve problems and/or design products.
TCC3(9-12): I can integrate relevant information to produce multiple valid solutions.

Understandings: Students will understand that…

- Mixing method changes the cookie’s texture.
- Consistency and shape are affected by variables.
- Quality baking relies on careful observation.
- Time, temperature and quality of ingredients controls the outcome of the finished product.

Essential Questions:

- What are the six cookie categories?
- What happens when we change the mixing method?
- How do we ensure consistent quality?

Students will know…

- Cookie types and their characteristics
- One-stage vs. creaming method

Students will be able to…

- Mix doughs properly
- Troubleshoot quality issues

• How different fats change the texture, appearance and taste of cookies	• Shape and bake each category of cookie
Key Vocabulary: Drop, rolled, bar, ice box, spritz, sheet, creaming method, one-stage method, butter, shortening	
Assessment Evidence	
Performance Tasks: Summative: Caramel filled cookie lab (drop) Formative: Brownie lab (sheet)	**Other Evidence:** Formative: Holiday cookie lab (rolled) Interim: Cookie written assessment
Learning Plan	
Learning Plan: • Cookie method comparison and contrast demonstrations; student and teacher TCC3(9-12) • Practice dough shaping, forming and portioning TI4(9-12) • Executing three common cookie mixing and baking methods TCC4(9-12) • Kitchen Labs CCE3(9-12)	
Teacher Resources: The Culinary Professional text - Google slides - Comparison chart - Instructional videos - Other resources will be added as needed to accommodate current industry trends.	

Unit 7 - Pasta and Sauces

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

J. Planning Menu Items: Demonstrate menu planning based on standardized recipes.
- 26. Describe and apply menu planning principles to develop, adjust, and modify recipes and menus.
- 27. Analyze food, equipment, and supplies needed for menus.

K. Food Preparation: Demonstrate preparation for all menu categories to produce a variety of food products.
- 28. Describe and demonstrate a variety of cooking methods such as roasting, baking, broiling, smoking, grilling, sautéing, frying, deep frying, braising, stewing, poaching, steaming, and convection.
- 29. Describe the fundamentals of time and temperature as they relate to cooking, cooling, and reheating of a variety of foods.
- 31. Describe and demonstrate the process for preparing various stocks, soups, and sauces.
- 32. Describe and demonstrate the process for preparing various fruits, vegetables, starches, and farinaceous items.
- 33. Describe and demonstrate the process for preparing various salads, dressings, marinades, and seasonings.
- 35. Describe and demonstrate the process for preparing eggs, grains, and batter products.
- 36. Describe and demonstrate techniques for food presentation.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)
DE4(9-12): I can work respectfully with all members of my community and support the needs of others.
TCC4(9-12): I can integrate my learning to adapt to experiences in the classroom, career and life.
CCE1(9-12): I can initiate discussions with my peers and teachers about a variety of topics, respecting differing viewpoints, actively listening to others, and responding thoughtfully with peer-reviewed evidence that is free of bias.
CCE3(9-12): I can show initiative in prompting group discourse and fostering collaboration among others, providing actionable feedback, and working with others to solve problems and/or design products.

Understandings: Students will understand that…

- Pasta is a cultural and culinary staple worldwide.
- Handmade pasta and sauce requires technique, consistency and creativity.
- Prior knowledge informs new recipes.

Essential Questions:

- What do different cultures call similar pastas from their own culture?
- How is fresh pasta different from dried?
- What makes a great sauce?

Students will know…	**Students will be able to…**
• Pasta types and associated cultures • Steps to make pasta, red sauce and pesto • How to cook dried and fresh pasta properly • What other sauces can be served with pasta other than red sauce	• Mix, roll and cut pasta • Prepare basic marinara and pesto sauce • Properly cook fresh and dried pasta
Key Vocabulary: Semolina, rollers, extruder, knead, laminate, reduction, al dente, rehydrate, sweat, translucent	
Assessment Evidence	
Performance Tasks: Summative: Fresh pasta and sauce lab	**Other Evidence:** Interim: Create your own pasta group project
Learning Plan	
• Compare and contrast dry and fresh pasta DE4(9-12) • Modeling CCE3(9-12) • Presentation on pasta origin from different cultures DE4(9-12) • Pasta making kitchen lab TCC4(9-12), CCE3(9-12) • Sauce simmering and seasoning exercises CCE1(9-12)	
Teacher Resources: The Culinary Professional text - Video tutorials on pasta and sauces - Other resources will be added as needed to accommodate current industry trends.	

CULINARY ARTS II CURRICULUM

(Refer to the Curriculum Template Explanation document while writing curriculum)



CULINARY ARTS

REGION 14 SCHOOL DISTRICT

VISION OF A LEARNER

Grade Level(s): 9 - 12	**Curriculum Author(s):** John Dominello

Course Description: Culinary Arts II is a semester-based course that builds on foundational skills developed in Culinary Arts I. Students refine their kitchen safety and sanitation practices, master a broader range of food preparation techniques, and explore topics in hospitality and food presentation.The course emphasizes critical thinking, collaboration, and real-world application through hands-on cooking labs and participation in school-based catering events.

Year At A Glance			
Unit Title	**Overarching Essential Question**	**Overarching Enduring Understanding**	**Vision of A Learner "I Can" Statements**
Kitchen Safety, Sanitation and Kitchen Overview	Why are safety and sanitation essential to every step in food preparation?	Maintaining a safe, clean, and well-organized kitchen is fundamental to all culinary practices and is essential for preventing foodborne illnesses, ensuring efficiency, and upholding public health standards.	TCC4(9-12), CCE3(9-12), DE4(9-12), TI1(9-12), P1(9-12)
Starch Identification and Cookery	How do different starches (e.g., rice, pasta, potatoes) influence the flavor, texture, and structure of a dish and why is it important to understand the cooking properties of various starches?	Starches are foundational ingredients in global cuisines, and understanding their characteristics, functions, and cooking methods allow chefs to build structure, balance, and variety in culinary creations.	TCC3(9-12), TI2(9-12), P4(9-12), CCE4(9-12)
Vegetable Identification and Cookery	How do cooking methods affect the nutritional value, texture, and color of vegetables as well as understanding seasonality and sourcing when preparing a menu.	Vegetables contribute essential nutrients, color, texture, and flavor to dishes, and mastery of preparation and cooking techniques enhances both the taste and nutritional value of meals.	TCC1(9-12), DE1(9-12), AA2(9-12), CCE3(9-12)
Soups	How do different cultural traditions influence the ingredients and preparation of soups?	Soups are versatile dishes that reflect cultural identity and culinary skill, and their preparation reinforces	TCC2(9-12), CCE1(9-12), TI2(9-12), AA3(9-12)

	What foundational culinary skills are demonstrated through soup-making?	foundational techniques like flavor development, knife skills, and cooking methods.	
Salads and Dressings	What is the relationship between texture, temperature, and flavor in successful salad composition? How do emulsions function in salad dressings, and why are they important?	A well-composed salad demonstrates balance in texture, flavor, and presentation, while dressings introduce essential culinary principles such as emulsification and seasoning.	DE2(9-12), TCC3(9-12), TI3(9-12), AA1(9-12)
Fruit Identification and Preparation	What are the best practices for selecting, storing, and preparing fresh fruit? Why is understanding ripeness and seasonality critical in fruit preparation?	Fruits offer natural sweetness, acidity, and nutrition to dishes, and proper selection, handling, and preparation techniques enhance their appeal and culinary use in both savory and sweet contexts.	CCE1(9-12), DE4(9-12), TI3(9-12), P2(9-12)
Comfort Foods	What emotional and cultural significance do comfort foods hold in different communities?	Comfort foods evoke emotion and tradition, often reflecting cultural, familial, and regional heritage, and provide opportunities for chefs to innovate while honoring authenticity and nostalgia.	CCE3(9-12), TI1(9-12), P2(9-12), TCC4(9-12)
Hospitality, Table Service and Guest Relations	How does professional service impact a guest's dining experience? What communication and etiquette	Exceptional hospitality and attentive service are as vital to the dining experience as the food itself, requiring strong interpersonal skills,	DE4(9-12), CCE1(9-12), CCE2(9-12), TI4(9-12), AA1(9-12)

	skills are essential in hospitality roles?	professionalism, and an understanding of guest needs.	

Unit 1 - Kitchen Safety, Sanitation and Kitchen Overview

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

Connecticut Career & Technical Education Performance Standards and Competencies & Common Core Standards

E. Food Safety: Evaluate factors that affect food safety, from production through consumption.
11. Determine conditions and practices that promote safe food handling, production, and consumption.
12. Identify characteristics of major food borne pathogens, their role in causing illness, foods involved in outbreaks, and methods of prevention.
13. Describe food borne illness as a health issue for individuals and families.

G. Safety Issues: Demonstrate procedures applied to safety issues.
16. Demonstrate procedures applied to safety issues.
17. Demonstrate skills in safe handling of knives, tools, and equipment.
18. Examine procedures for safe and secure storage for equipment and tools.

H. Food Safety and Sanitation: Demonstrate food safety and sanitation procedures.
19. Describe and practice good personal hygiene/health procedures, and report symptoms of illness.
20. Explain and demonstrate methods for properly handling and storing both raw and prepared foods.
21. Explain and demonstrate techniques for food handling and preparation that prevent cross contamination between raw, cooked, and ready-to-eat foods and between animal or fish sources and other food products.
22. Demonstrate procedures for cleaning and sanitizing small equipment, serving dishes, glassware, and utensils.

I. Food Production Equipment: Demonstrate selecting, using, and maintaining food production equipment.
23. Describe and demonstrate techniques for operating tools and equipment following safety procedures.
24. Describe and demonstrate the process for maintaining tools and equipment following safety procedures.
25. Describe and demonstrate the proper procedures for storing equipment and tools.

B. Food Safety and Sanitation: 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.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)
TCC4(9-12): I can integrate my learning to adapt to experiences in the classroom, career and life.
CCE3(9-12): I can show initiative in prompting group discourse and fostering collaboration among others, providing actionable feedback, and working with others to solve problems and/or design products.
DE4(9-12): I can work respectfully with all members of my community and support the needs of others.
TI1(9-12): I can implement a realistic plan and adapt when necessary to achieve my goals.
P1(9-12): I can self-reflect and seek feedback to build upon my strengths, apply those strengths to overcome obstacles, and share my strategies with others.

Understandings: Students will understand that…

- Food safety and sanitation are foundational to any culinary environment.
- Proper equipment use and safety measures prevent accidents and contamination.
- Understanding basic kitchen systems are essential for efficient culinary operations.

Essential Questions:

1. How do sanitation and safety protocols impact food quality and health?
2. What foundational knowledge must a chef have before beginning food preparation?
3. Why are knife skills critical to kitchen safety and culinary outcomes?

Students will know...

- The difference between cleaning and sanitizing
- Sources and prevention of foodborne illness
- Parts of a standard recipe
- Common kitchen tools and their maintenance

Students will be able to...

- Identify and prevent cross-contamination
- Demonstrate proper hygiene and food handling
- Safely use and store knives and equipment
- Convert recipe measurements

Key Vocabulary: Sanitation, Cross-contamination, Mise en place, Knife cuts, Danger zone, Cleaning vs Sanitizing, Equipment Storage, Food Storage, Pathogens, Potentially Hazardous Foods

Assessment Evidence

Performance Tasks:
Summative: Sanitation and Safety Test
Formative: Pasta with Pink Sauce lab (graded on knife skills, recipe reading, sanitation, safety, team work)

Other Evidence:
Interim: Safety and sanitation group case study
Formative: Equipment identification worksheet
Formative: Kitchen lab pretest worksheet

Learning Plan
• Pretest and discussion CCE3(9-12) • Schema Activator: Demonstration table with sanitation tools and kitchen items for discussion TI1(9-12) • Food safety videos, group discussion, CIA video CCE3(9-12) • Identify and demonstrate knife skills and safe equipment usage CC4(9-12) • Lab: Pasta with pink sauce CCE3(9-12) DE4(9-12) • Written test and group case study TCC4(9-12) P1(9-12)
Teacher Resources: The Culinary Professional textbook, CIA Video: "Sanitation is not an Option", Safety & Sanitation Study Guide, Other resources will be added as needed to accommodate current industry trends.

Unit 2 - Starch Identification and Cookery

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

CONNECTICUT CAREER & TECHNICAL EDUCATION PERFORMANCE STANDARDS & COMPETENCIES
J. Planning Menu Items: Demonstrate menu planning based on standardized recipes.
26. Describe and apply menu planning principles to develop, adjust, and modify recipes and menus.
27. Analyze food, equipment, and supplies needed for menus.

K. Food Preparation: Demonstrate preparation for all menu categories to produce a variety of food products.
28. Describe and demonstrate a variety of cooking methods such as roasting, baking, broiling, smoking, grilling, sautéing, frying, deep frying, braising, stewing, poaching, steaming, and convection.
29. Describe the fundamentals of time and temperature as they relate to cooking, cooling, and reheating of a variety of foods.
32. Describe and demonstrate the process for preparing various fruits, vegetables, starches, and farinaceous items.
34. Describe and demonstrate the process for preparing baked goods and desserts.
35. Describe and demonstrate the process for preparing eggs, grains, and batter products.
36. Describe and demonstrate techniques for food presentation.

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.
14. Demonstrate professional skills for a variety of cooking methods including roasting, broiling, smoking, grilling, sautéing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies.
15. Utilize weight and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques.
16. Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding a variety of foods.
19. Prepare various fruits, vegetables, starches, legumes, dairy products, fats, and oils using safe handling and professional preparation techniques.
23. Prepare breakfast meats, eggs, cereal grains, and batter products using safe handling and professional preparation techniques.
24. Demonstrate professional plating, garnishing, and food presentation techniques.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

- TCC3(9-12): I can integrate relevant information to produce multiple valid solutions.
- TI2(9-12): I can evaluate my objectives and a variety of credible resources to find the best solutions for any challenge.
- P4(9-12): I can take-on challenges and continuously engage in my own long-term strategies to overcome them to demonstrate through personal experience that failures are more instructive than discouraging.

- CCE4(6-8): I can express my thoughts and ideas, both verbally and in writing, in order to defend my perspective. I can do this via essays, performance-based projects, whole group, and/or small group discussions.

Understandings: Students will understand that...	**Essential Questions:**
• Different starches require specific preparation and cooking methods. • Cooking method and liquid to rice ratios affect texture, nutrition, and visual appeal. • Accurate recipe interpretation is essential to successful food preparation.	1. Is all rice the same? 2. Are all potatoes the same? 3. Do the same ratios and methods apply to all starches? 4. How does cooking technique affect the nutritional and sensory properties of starches?
Students will know...	**Students will be able to...**
• Common varieties of potatoes and rice and their appropriate uses • Moist and dry heat cooking methods for starches • The effect of preparation techniques on nutrient retention	• Identify, store, and cook rice and potatoes using appropriate methods • Demonstrate correct cooking ratios and methods for starches • Apply sanitation procedures during preparation and cleanup

Key Vocabulary: Starch, Simmer, Pilaf, Steaming, Nutrient retention, Variety, Parboil, Al dente, Ratio, Stock, Broth, Bran layer

Assessment Evidence

Performance Tasks:	**Other Evidence:**
Summative: Stir-Fried Rice Lab Interim: Baked Stuffed Potato Lab Formative: Spanish Rice, Dirty Rice, Au Gratin and Whipped Potato labs	Formative: Unit Pre-Test Interim: Written assessment on starch types, techniques, and tools

Learning Plan

- Schema Activator: display of potato varieties and rice types for discussion TCC3(9-12)
- Demonstrations: Cutting potatoes, Instructor and student demonstration of all rice dishes TI2(9-12)
- Stir-Fried Rice Lab, Baked Stuffed Potato Lab, Spanish Rice Lab, Dirty Rice Lab, Au Gratin and Whipped Potato Labs P4(9-12)
- Slideshow presentation, Study Guide and Class Discussion CCE4(6-8)
- Written quiz and exit slip CCE4(6-8)

Teacher Resources: The Culinary Professional textbook, Slideshow presentation with video vignettes, Recipe conversion and nutrition comparison charts, Other resources will be added as needed to accommodate current industry trends.

Unit 3 - Vegetable Identification and Cookery

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

CONNECTICUT CAREER & TECHNICAL EDUCATION PERFORMANCE STANDARDS & COMPETENCIES

J. Planning Menu Items: Demonstrate menu planning based on standardized recipes.
26. Describe and apply menu planning principles to develop, adjust, and modify recipes and menus.
27. Analyze food, equipment, and supplies needed for menus.

K. Food Preparation: Demonstrate preparation for all menu categories to produce a variety of food products.
28. Describe and demonstrate a variety of cooking methods such as roasting, baking, broiling, smoking, grilling, sautéing, frying, deep frying, braising, stewing, poaching, steaming, and convection.
29. Describe the fundamentals of time and temperature as they relate to cooking, cooling, and reheating of a variety of foods.
32. Describe and demonstrate the process for preparing various fruits, vegetables, starches, and farinaceous items.
34. Describe and demonstrate the process for preparing baked goods and desserts.
35. Describe and demonstrate the process for preparing eggs, grains, and batter products.
36. Describe and demonstrate techniques for food presentation.

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.
14. Demonstrate professional skills for a variety of cooking methods including roasting, broiling, smoking, grilling, sautéing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies.
15. Utilize weight and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques.
16. Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding a variety of foods.
19. Prepare various fruits, vegetables, starches, legumes, dairy products, fats, and oils using safe handling and professional preparation techniques.
23. Prepare breakfast meats, eggs, cereal grains, and batter products using safe handling and professional preparation techniques.
24. Demonstrate professional plating, garnishing, and food presentation techniques.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

- TCC1(9-12): I can ask purposeful, insightful questions to find a variety of innovative solutions.
- DE1(9-12): I can acknowledge, process, and respond appropriately to others' comments and perspectives.

- AA2(9-12): I can assess my past successes and mistakes to change my approach.
- CCE3(9-12): I can show initiative in prompting group discourse and fostering collaboration among others, providing actionable feedback, and working with others to solve problems and/or design products.

Understandings: Students will understand that...	**Essential Questions:**
• Cooking methods affect the flavor, texture, and nutrition of vegetables. • Knife skills impact safety and efficiency in preparation. • Seasonality and color, inform the visual and nutritional appeal of a dish.	1. How important is it to recognize and properly cook vegetables? 2. Are vegetables always healthy regardless of how they're prepared? 3. What is the difference between dry and moist heat cooking for vegetables? 4. What are the differences between vegetables and fruit?
Students will know…	**Students will be able to…**
• Cooking methods for various vegetables • Knife cuts appropriate for different recipes • Flavor, color, and nutrition principles in vegetable preparation	• Prepare vegetables using blanching, shocking, roasting, and braising techniques • Apply advanced knife skills to vegetable prep • Plate and evaluate vegetable dishes for appeal and quality

Key Vocabulary: Blanch, Shock, Concasse, Braise, Sauté, Sweat, Seasonal, Al dente, Color retention, Chiffonade, Julienne, Small/Medium Dice

Assessment Evidence

Performance Tasks:	**Other Evidence:**
Summative: Ratatouille Lab Interim: Stir-Fried Szechuan Green Bean lab Formative: Corn Fritter lab	Formative: Vegetable Pre-Test and discussion Interim: Written Quiz

Learning Plan

- Schema Activator: unusual vegetable table display and discussion DE1(9-12)
- Knife skill demonstration and cutting practice TCC1(9-12)
- Labs: Corn fritter, Stir-fried green bean, and ratatouille TCC1(9-12) CCE3(9-12)
- Slideshow, instructional videos and study guide AA2(9-12)
- Written quiz and vegetable pre-test discussion DE1(9-12)

Teacher Resources: The Culinary Professional textbook, Knife skills videos, Vegetable identification cards, Other resources will be added as needed to accommodate current industry trends.

Unit 4 - Soups

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

CONNECTICUT CAREER & TECHNICAL EDUCATION PERFORMANCE STANDARDS & COMPETENCIES

J. Planning Menu Items: Demonstrate menu planning based on standardized recipes.
26. Describe and apply menu planning principles to develop, adjust, and modify recipes and menus.
27. Analyze food, equipment, and supplies needed for menus.

K. Food Preparation: Demonstrate preparation for all menu categories to produce a variety of food products.
28. Describe and demonstrate a variety of cooking methods such as roasting, baking, broiling, smoking, grilling, sautéing, frying, deep frying, braising, stewing, poaching, steaming, and convection.
29. Describe the fundamentals of time and temperature as they relate to cooking, cooling, and reheating of a variety of foods.
31. Describe and demonstrate the process for preparing various stocks, soups, and sauces.
32. Describe and demonstrate the process for preparing various fruits, vegetables, starches, and farinaceous items.
36. Describe and demonstrate techniques for food presentation.

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.
14. Demonstrate professional skills for a variety of cooking methods including roasting, broiling, smoking, grilling, sautéing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies.
15. Utilize weight and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques.
16. Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding a variety of foods.
18. Prepare various stocks, soups, and sauces using safe handling and professional preparation techniques.
19. Prepare various fruits, vegetables, starches, legumes, dairy products, fats, and oils using safe handling and professional preparation techniques.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)
TCC2(9-12): I can evaluate evidence from multiple perspectives, and recognize their limitations and implications, in order to justify new conclusions.
CCE1(9-12): I can initiate discussions with my peers and teachers about a variety of topics, respecting differing viewpoints, actively listening to others, and responding thoughtfully with peer-reviewed evidence that is free of bias.
TI2(9-12): I can evaluate my objectives and a variety of credible resources to find the best solutions for any challenge.
AA3(9-12): I can adjust my expectations and behaviors to succeed in a changing and unpredictable environment.

Understandings: Students will understand that… ● Soups are categorized by preparation, origin and texture (clear, purée, cream, unusual). ● Stocks and broths are foundational to soup flavor. ● Temperature control and timing are essential to quality and safety.	**Essential Questions:** 1. Are all soups the same? 2. How do you thicken and flavor a soup without compromising taste and nutrition? 3. What defines a regional or cultural soup?
Students will know… ● How to prepare stock and broth ● Soup classifications and preparation techniques ● Safe cooling, storage and reheating procedures	**Students will be able to…** ● Prepare a variety of soups including cream, speciality and clear ● Identify, prepare and use thickening agents ● Present soups attractively with garnishes
Key Vocabulary: Mirepoix, Broth, Stock, Roux, Slurry, Purée, Simmer, Sweat, Sachet, Translucent, Knife skills	
Assessment Evidence	
Performance Tasks: Summative: Maryland Corn Chowder Lab Interim: Puree of Lentil Soup Lab Formative: Group Case Study	**Other Evidence:** Interim: Cream of Broccoli Soup and Chicken Noodle Soup Labs Formative: Pre-test Interim: Written Assessment on soup terminology and preparation
Learning Plan	
● Schema Activator: Canned Soup, Stock and Broth display and discussion CCE1(9-12) TCC2(9-12) ● Demonstrations: cutting mirepoix and demonstration each category of soup TCC2(9-12) ● Soup Labs AA3(9-12) ● Pre-Test and discussion CCE1(PK-2) TI2(9-12)	
Teacher Resources: The Culinary Professional textbook, CIA instructional videos, Other resources will be added as needed to accommodate current industry trends.	

Unit 5 - Salads and Dressings

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

CONNECTICUT CAREER & TECHNICAL EDUCATION PERFORMANCE STANDARDS & COMPETENCIES

J. Planning Menu Items: Demonstrate menu planning based on standardized recipes.
26. Describe and apply menu planning principles to develop, adjust, and modify recipes and menus.
27. Analyze food, equipment, and supplies needed for menus.

K. Food Preparation: Demonstrate preparation for all menu categories to produce a variety of food products.
28. Describe and demonstrate a variety of cooking methods such as roasting, baking, broiling, smoking, grilling, sautéing, frying, deep frying, braising, stewing, poaching, steaming, and convection.
29. Describe the fundamentals of time and temperature as they relate to cooking, cooling, and reheating of a variety of foods.
32. Describe and demonstrate the process for preparing various fruits, vegetables, starches, and farinaceous items.
33. Describe and demonstrate the process for preparing various salads, dressings, marinades, and seasonings.
36. Describe and demonstrate techniques for food presentation.

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.
14. Demonstrate professional skills for a variety of cooking methods including roasting, broiling, smoking, grilling, sautéing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies.
15. Utilize weight and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques.
16. Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding a variety of foods.
20. Prepare various salads, dressings, marinades, and seasonings using safe handling and professional preparation techniques
24. Demonstrate professional plating, garnishing, and food presentation techniques.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

DE2(9-12): I can honor my own feelings and show empathy toward others through my actions.
TCC3(9-12): I can integrate relevant information to produce multiple valid solutions.
TI3(9-12): I can formulate and investigate probing questions to further my learning.
AA1(9-12): I can evaluate different approaches and justify the best pathway to success.

Understandings: Students will understand that… ● Salads serve different purposes in meals (appetizer, side, main course, dessert). ● Dressings influence nutrition, presentation, texture and guest perception. ● Proper sanitation is essential in salad prep.	**Essential Questions:** 1. What are the different purposes of salads on a menu? 2. Are all salad greens the same? 3. What defines a well-balanced and sanitary salad? 4. Do all salads contain lettuce?
Students will know… ● Types of greens and common salad categories ● Emulsion and dressing preparation ● The difference between bound and marinated salads ● Proper storage and serving techniques	**Students will be able to…** ● Prepare tossed, bound, marinated and composed salads ● Make vinaigrette and creamy dressings ● Present salads with attention to detail and safety
Key Vocabulary: Vinaigrette, Emulsion, Mesclun, Romaine, Bound, Marinated, Salad Spinner, Garnish, Ratio	
Assessment Evidence	
Performance Tasks: Interim: Pasta Caprese Salad Lab Summative: Mediterranean Grain & Bean Salad Lab	**Other Evidence:** Formative: Salad Analysis Grid (Think/Pair/Share) Interim: Written assessment
Learning Plan	
● Schema Activator: comparing salad greens and oils/vinegars on demonstration table AA1(9-12) ● Dressing demonstration and tasting analysis TCC3(9-12) ● Lab rotations through various salad types AA1(9-12), DE2(9-12) ● Salad Analysis Grid and discussion TI3(9-12) ● Written Assessment AA1(9-12)	
Teacher Resources: The Culinary Professional textbook, The Professional Chef textbook, Slideshow and Instructional videos, Other resources will be added as needed to accommodate current industry trends.	

Unit 6 - Fruit Identification and Preparation

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

CONNECTICUT CAREER & TECHNICAL EDUCATION PERFORMANCE STANDARDS & COMPETENCIES

J. Planning Menu Items: Demonstrate menu planning based on standardized recipes.
26. Describe and apply menu planning principles to develop, adjust, and modify recipes and menus.
27. Analyze food, equipment, and supplies needed for menus.

K. Food Preparation: Demonstrate preparation for all menu categories to produce a variety of food products.
28. Describe and demonstrate a variety of cooking methods such as roasting, baking, broiling, smoking, grilling, sautéing, frying, deep frying, braising, stewing, poaching, steaming, and convection.
29. Describe the fundamentals of time and temperature as they relate to cooking, cooling, and reheating of a variety of foods.
31. Describe and demonstrate the process for preparing various stocks, soups, and sauces.
32. Describe and demonstrate the process for preparing various fruits, vegetables, starches, and farinaceous items.
34. Describe and demonstrate the process for preparing baked goods and desserts.
36. Describe and demonstrate techniques for food presentation.

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.
14. Demonstrate professional skills for a variety of cooking methods including roasting, broiling, smoking, grilling, sautéing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies.
15. Utilize weight and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques.
16. Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding a variety of foods.
22. Prepare breads, baked goods, and desserts using safe handling and professional preparation techniques.
24. Demonstrate professional plating, garnishing, and food presentation techniques.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

CCE1(9-12): I can initiate discussions with my peers and teachers about a variety of topics, respecting differing viewpoints, actively listening to others, and responding thoughtfully with peer-reviewed evidence that is free of bias.
DE4(9-12): I can work respectfully with all members of my community and support the needs of others.
TI3(9-12): I can formulate and investigate probing questions to further my learning.

P2(9-12): I can strengthen my weaknesses by identifying, initiating, and practicing appropriate strategies to become confident in my ability to overcome my challenges.

Understandings: Students will understand that…	**Essential Questions:**
• Fruit selection and preparation are influenced by seasonality, purpose, and presentation. • Proper handling and cutting techniques enhance flavor and appearance. • Fruit-based dishes can serve as starters, entrees, desserts, or snacks.	1. Is the quality of fruit consistent all year? 2. How do cutting techniques affect flavor and presentation? 3. What are the major categories of fruit and how are they best prepared?
Students will know…	**Students will be able to…**
• Fruit classifications • Garnishing tools and techniques • Color preservation methods	• Prepare and present fresh fruit in a variety of formats • Demonstrate proper cutting techniques • Store and serve fruit safely and attractively

Key Vocabulary: Zest, Garnish, Segment, Supreme, Acidulated Water, Pith, Pulp, Peel, Core

Assessment Evidence

Performance Tasks:	**Other Evidence:**
Summative: Fresh Fruit Salad Lab	Formative: Garnishing and cutting demonstration worksheet Formative: Student-created chapter quiz questions

Learning Plan

- Schema Activator: exotic fruit cutting demonstration, tasting and discussion DE4, TI3(9-12)
- Salad assembly and platter design CCE1(9-12)
- Student reflection and group quiz creation TI3 9-12)
- Garnishing and cutting demonstration worksheet P2(9-12)
- Fresh Fruit Salad Lab CCE1(9-12)

Teacher Resources: The Culinary Professional textbook, Garnishing tools and Food Garnishing text, Instructional videos, Other resources will be added as needed to accommodate current industry trends.

Unit 7 - Comfort Foods

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

CONNECTICUT CAREER & TECHNICAL EDUCATION PERFORMANCE STANDARDS & COMPETENCIES

J. Planning Menu Items: Demonstrate menu planning based on standardized recipes.
26. Describe and apply menu planning principles to develop, adjust, and modify recipes and menus.
27. Analyze food, equipment, and supplies needed for menus.

K. Food Preparation: Demonstrate preparation for all menu categories to produce a variety of food products.
28. Describe and demonstrate a variety of cooking methods such as roasting, baking, broiling, smoking, grilling, sautéing, frying, deep frying, braising, stewing, poaching, steaming, and convection.
29. Describe the fundamentals of time and temperature as they relate to cooking, cooling, and reheating of a variety of foods.
31. Describe and demonstrate the process for preparing various stocks, soups, and sauces.
32. Describe and demonstrate the process for preparing various fruits, vegetables, starches, and farinaceous items.
34. Describe and demonstrate the process for preparing baked goods and desserts.
35. Describe and demonstrate the process for preparing eggs, grains, and batter products.
36. Describe and demonstrate techniques for food presentation.

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.
14. Demonstrate professional skills for a variety of cooking methods including roasting, broiling, smoking, grilling, sautéing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies.
15. Utilize weight and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques.
16. Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding a variety of foods.
Prepare various stocks, soups, and sauces using safe handling and professional preparation techniques.
19. Prepare various fruits, vegetables, starches, legumes, dairy products, fats, and oils using safe handling and professional preparation techniques.
22. Prepare breads, baked goods, and desserts using safe handling and professional preparation techniques.
23. Prepare breakfast meats, eggs, cereal grains, and batter products using safe handling and professional preparation techniques.
24. Demonstrate professional plating, garnishing, and food presentation techniques.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)
CCE3(9-12): I can show initiative in prompting group discourse and fostering collaboration among others, providing actionable feedback, and working with others to solve problems and/or design products.
TI1(9-12): I can implement a realistic plan and adapt when necessary to achieve my goals.
P2(9-12): I can strengthen my weaknesses by identifying, initiating, and practicing appropriate strategies to become confident in my ability to overcome my challenges.
TCC4(9-12): I can integrate my learning to adapt to experiences in the classroom, career and life.

Understandings: Students will understand that…	**Essential Questions:**
• Comfort foods reflect personal, cultural, and regional values. • They can be adapted to meet modern nutritional standards. • Recipe and portion adjustments influence health outcomes.	1. What defines a comfort food? 2. Can comfort foods be healthy? 3. How do tradition and memory influence food preferences?
Students will know…	**Students will be able to…**
• Characteristics and origins of comfort foods • Recipe adjustment strategies for health-conscious meals • Proper reheating and storage for leftovers	• Prepare and serve traditional comfort foods • Adapt recipes using healthier ingredients and techniques • Reflect on food's emotional and cultural significance

Key Vocabulary: Comfort food, Nostalgia, Portion control, Saturated fat, Substitution, Satisfaction, Culture

Assessment Evidence

Performance Tasks:	**Other Evidence:**
Summative: Chocolate Lava Cake lab Interim: Yeast Raised Pizza and Sauce lab	Formative: Macaroni & Cheese lab Interim: Comfort Food Group Project

Learning Plan

- Entrance Slip: What is Comfort Food? CCE3(9-12)
- Comfort Food Group Project CCE3(9-12)
- Lab prep and collaborative cooking (CCE3) TCC4(9-12)
- Peer review and reflection TI1(9-12) P2(9-12)

Teacher Resources: The Culinary Professional textbook, The Professional Chef textbook, A Global Food textbook, Nutritional Analysis Chart, Other resources will be added as needed to accommodate current industry trends.

Unit 8 - Hospitality and Table Service

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

CONNECTICUT CAREER & TECHNICAL EDUCATION PERFORMANCE STANDARDS & COMPETENCIES

F. Career Paths: Analyze career paths within hospitality, food production and services, and food science.
- 14. Determine education and training requirements and opportunities for career paths in food production and services.
- 15. Identify opportunities for employment.

A. Career Paths: Analyze career paths within the food production and food services industries.
- 1. Explain the roles, duties, and functions of individuals engaged in food production and service careers.
- 2. Summarize education and training requirements and opportunities for career paths in food production and services.

F. Customer Service: Demonstrate the concept of internal and external customer service.
- 25. Demonstrate quality services that meet industry standards in the food service industry.
- 26. Analyze the relationship between employees and customer satisfaction.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)
DE4(9-12): I can work respectfully with all members of my community and support the needs of others.
CCE1(9-12): I can initiate discussions with my peers and teachers about a variety of topics, respecting differing viewpoints, actively listening to others, and responding thoughtfully with peer-reviewed evidence that is free of bias.
CCE2(9-12): I can give and receive actionable and relevant feedback with openness to be able to determine meaningful revisions for success.
TI4(9-12): I can apply my strengths and anticipate challenges to reach my current and future goals.
AA1(9-12): I can evaluate different approaches and justify the best pathway to success.

Understandings: Students will understand that…

- Hospitality involves anticipating and meeting guest needs with professionalism.
- Table setting, guest service, and communication are critical to the dining experience.
- Guest interactions shape reputation and return visits.

Essential Questions:

1. What makes someone feel like a guest vs. a customer?
2. What communication skills matter in hospitality?
3. How does professionalism impact service?

Students will know…	**Students will be able to…**
• Front-of-house roles and responsibilities • Principles of professional guest interaction • Formal and informal table service styles	• Demonstrate proper table setting and service techniques • Interact with guests using professional language and demeanor • Reflect on hospitality as a transferable skill
Key Vocabulary: Hospitality, Guest vs.Customer, Mise en place, Table setting, FOH (front-of-house), BOH (back-of-house), Service etiquette	
Assessment Evidence	
Performance Tasks: Summative: Table Service project	**Other Evidence:** Formative: Table setting demonstration Formative: Guest service role-play scenarios Formative: Peer feedback and reflection sheet
Learning Plan	
• Entrance slip and discussion: personal best/worst dining experiences CCE1(9-12) • Role-play and team feedback cycles CCE2(9-12) • Table service during class meal, students rotate DE4(9-12) CCE1(9-12) • Feedback and reflection exercise TI4(9-12) CCE2(9-12) • Video analysis of real service interactions AA1(9-12)	
Teacher Resources: The Culinary Professional textbook, The Professional Chef textbook, Video samples of table service techniques, Other resources will be added as needed to accommodate current industry trends.	

FARM TO TABLE CURRICULUM

(Refer to the Curriculum Template Explanation document while writing curriculum)



Grade Level(s): 9 - 12

Curriculum Author(s): John Dominello

Course Description:
This interdisciplinary course integrates agricultural science, culinary arts, and environmental sustainability. Students engage in the full cycle of food production from seed to plate by managing gardens, a greenhouse, hydroponic systems, and food labs. Through hands-on learning, students cultivate, prepare, and preserve a wide range of foods while exploring the scientific, cultural, and environmental dimensions of agriculture and food systems.

Year At A Glance			
Unit Title	**Overarching Essential Question**	**Overarching Enduring Understanding**	**Vision of A Learner "I Can" Statements**
Greenhouse, Garden, and Kitchen Safety, Sanitation, and Management	How does responsible management of tools, environments, and systems impact food production and safety?	Safe, efficient, and sustainable practices are essential to both food production and kitchen operation.	TI1(9-12), CCE1(9-12), P3(9-12)
Fruit, Vegetable, and Herb Cultivation, Identification, and Preparation	How do environment and preparation methods affect food growth and flavor?	Understanding cultivation and cooking techniques empowers individuals to make informed food choices and reduce waste.	TCC3(9-12), TI4(9-12), CCE4(9-12)
Fish and Shellfish Production and Preparation	How do sustainable practices in aquaculture affect ecosystems and food systems?	Aquaculture offers opportunities for sustainable food production when environmental, health, and safety factors are managed effectively.	TCC2(9-12), DE1(9-12), CCE3(9-12)
Meat and Dairy Products	How do fabrication and preparation techniques influence food quality, sustainability, and ethics?	Knowledge of animal product sourcing, processing, and preparation is key to sustainable and ethical consumption.	AA1(9-12), TI2(9-12), CCE2(9-12)
Basic Cooking Techniques and Recipe Reading	How do basic techniques and accurate recipe interpretation influence culinary success?	Mastering foundational cooking methods and recipe reading promotes independence and culinary creativity.	TI3(9-12), P1(9-12), CCE4(9-12)
Foraged and Local Foods	What role do natural ecosystems play in local food systems?	Forest ecosystems provide diverse food sources that require responsible harvesting and deep ecological knowledge.	DE4(9-12), AA4(9-12), TCC4(9-12)

Unit 1 - Greenhouse, Garden, and Kitchen Safety, Sanitation, and Management

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

AFNR CAREER CLUSTER CONTENT STANDARDS

- PS.01. CCTC Standard: Develop and implement a crop management plan for a given production goal that accounts for environmental factors.
- PS.01.01. Performance Indicator: Determine the influence of environmental factors on plant growth.
- PS.01.02.01.a. Describe the major forms of growing media (e.g., hydroponics, soil, greenhouse potting mix, rockwool, etc.).
- PS.01.01.02.c. Design, implement and evaluate a plan to maintain optimal air and temperature conditions for plant growth
- PS.01.02. Performance Indicator: Prepare and manage growing media for use in plant systems.
- PS.01.02.02.c. Formulate and prepare growing media for specific plants or crops.
- PS.03. CCTC Standard: Propagate, culture and harvest plants and plant products based on current industry standards.
- PS.03.02. Performance Indicator: Develop and implement a management plan for plant production.
- PS.03.02.04.b. Monitor the progress of plantings and determine the need to adjust environmental conditions.
- PS.03.02.05.b. Demonstrate proper techniques to control and manage plant growth through mechanical, cultural or chemical means.
- PS.03.02.07.b. Compare and contrast the types of systems used in hydroponic and aquaponic plant production.

CONNECTICUT CAREER & TECHNICAL EDUCATION PERFORMANCE STANDARDS & COMPETENCIES

E. Food Safety: Evaluate factors that affect food safety, from production through consumption.
11. Determine conditions and practices that promote safe food handling, production, and consumption.
12. Identify characteristics of major food borne pathogens, their role in causing illness, foods involved in outbreaks, and methods of prevention.
13. Describe food borne illness as a health issue for individuals and families.

G. Safety Issues: Demonstrate procedures applied to safety issues.
16. Demonstrate procedures applied to safety issues.
17. Demonstrate skills in safe handling of knives, tools, and equipment.
18. Examine procedures for safe and secure storage for equipment and tools.

H. Food Safety and Sanitation: Demonstrate food safety and sanitation procedures.
19. Describe and practice good personal hygiene/health procedures, and report symptoms of illness.
20. Explain and demonstrate methods for properly handling and storing both raw and prepared foods.
21. Explain and demonstrate techniques for food handling and preparation that prevent cross contamination between raw, cooked,

and ready-to-eat foods and between animal or fish sources and other food products.
22. Demonstrate procedures for cleaning and sanitizing small equipment, serving dishes, glassware, and utensils.

I. Food Production Equipment: Demonstrate selecting, using, and maintaining food production equipment.
23. Describe and demonstrate techniques for operating tools and equipment following safety procedures.
24. Describe and demonstrate the process for maintaining tools and equipment following safety procedures.
25. Describe and demonstrate the proper procedures for storing equipment and tools.

D. Menu Planning: Demonstrate menu planning principles and techniques based on standardized recipes to meet customer needs.
11. Apply menu-planning principles to develop and modify menus.
12. Analyze food, equipment, and supplies needed for menus.

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.
14. Demonstrate professional skills for a variety of cooking methods including roasting, broiling, smoking, grilling, sautéing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies.
15. Utilize weight and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques.
16. Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding a variety of foods.
17. Prepare various meats, seafood, and poultry using safe handling and professional preparation techniques.
18. Prepare various stocks, soups, and sauces using safe handling and professional preparation techniques.
19. Prepare various fruits, vegetables, starches, legumes, dairy products, fats, and oils using safe handling and professional preparation techniques.
20. Prepare various salads, dressings, marinades, and seasonings using safe handling and professional preparation techniques
21. Prepare sandwiches, canapés, and appetizers using safe handling and professional preparation techniques.
22. Prepare breads, baked goods, and desserts using safe handling and professional preparation techniques.
23. Prepare breakfast meats, eggs, cereal grains, and batter products using safe handling and professional preparation techniques.
24. Demonstrate professional plating, garnishing, and food presentation techniques.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

TI1(9-12): I can implement a realistic plan and adapt when necessary to achieve my goals.
CCE1(9-12): I can initiate discussions with my peers and teachers about a variety of topics, respecting differing viewpoints, actively listening to others, and responding thoughtfully with peer-reviewed evidence that is free of bias.
P3(9-12): I can accept constructive feedback and use setbacks to adjust my learning journey in order to reach my goals.

Understandings: Students will understand that… ● Safe practices in kitchens, gardens, and greenhouses are vital to the success and sustainability of food systems. ● Environmental conditions must be monitored and adjusted to promote healthy plant and fish growth. ● Sanitation prevents foodborne illness and ensures a safe working environment.	**Essential Questions:** ● Why is sanitation essential in a food preparation environment? ● How can safety practices impact plant and food production outcomes? ● How do we create and maintain optimal growing and cooking environments?
Students will know... ● Types of hydroponic systems and equipment. ● Basic environmental requirements for plant growth. ● Food safety hazards and how to prevent cross-contamination. ● Proper storage, sanitation, and cleaning protocols.	**Students will be able to...** ● Maintain and troubleshoot greenhouse and aquaculture systems. ● Operate basic agricultural and kitchen equipment safely. ● Apply best practices for food handling, sanitation, and hygiene. ● Monitor air, temperature, and moisture to maintain healthy plant environments.
Key Vocabulary: Hydroponics, aquaponics, sanitation, cross-contamination, pathogens, nitrification, danger zone, germination, irrigation, recirculating aquaculture, growing media	
Assessment Evidence	
Performance Tasks: Summative: Safety and Sanitation Lab Practical: Students demonstrate sanitation protocols and equipment use. Interim: Greenhouse Operations Project: Students design and document management of a hydroponic system.	**Other Evidence:** Interim: Quizzes on food safety and greenhouse equipment. Formative: Daily participation and self-assessment of sanitation and safety behaviors.
Learning Plan	
Safety demonstrations and hands-on practice using kitchen equipment CCE1(9-12)	

Greenhouse system set-up, monitoring and data tracking TI1(9-12) Aquaponics troubleshooting lab and peer coaching P3(9-12) Cross-contamination simulation with case study review CCE1(9-12) Kitchen station setup and rotation TI1(9-12), P3(9-12)
Teacher Resources: The Culinary Professional textbook, CIA Video: "Sanitation is not an Option", Safety & Sanitation Study Guide, National FFA Safety and Environmental Science modules, ServSafe sanitation training materials, Hydroponics equipment manuals and greenhouse management guides, Other resources will be added as needed to accommodate current industry trends.

Unit 2 - Fruit, Vegetable, and Herb Cultivation, Identification, and Preparation

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

AFNR CAREER CLUSTER CONTENT STANDARDS

- PS.02.01.02.a: Describe the morphological characteristics used to identify agricultural and herbaceous plants.
- PS.03.05.04.a: Identify and categorize plant preparation methods for storing and shipping plants and plant products.
- PST.02.02.02.b: Apply safety principles and applicable regulations to operate equipment and machinery.

CONNECTICUT CAREER & TECHNICAL EDUCATION PERFORMANCE STANDARDS & COMPETENCIES

K. Food Preparation: Demonstrate preparation for all menu categories to produce a variety of food products.

28. Describe and demonstrate a variety of cooking methods such as roasting, baking, broiling, smoking, grilling, sautéing, frying, deep frying, braising, stewing, poaching, steaming, and convection.
29. Describe the fundamentals of time and temperature as they relate to cooking, cooling, and reheating of a variety of foods.
32. Describe and demonstrate the process for preparing various fruits, vegetables, starches, and farinaceous items.
34. Describe and demonstrate the process for preparing baked goods and desserts.
35. Describe and demonstrate the process for preparing eggs, grains, and batter products.
36. Describe and demonstrate techniques for food presentation.

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.
14. Demonstrate professional skills for a variety of cooking methods including roasting, broiling, smoking, grilling, sautéing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies.
15. Utilize weight and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques.
16. Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding a variety of foods.
19. Prepare various fruits, vegetables, starches, legumes, dairy products, fats, and oils using safe handling and professional preparation techniques.
23. Prepare breakfast meats, eggs, cereal grains, and batter products using safe handling and professional preparation techniques.
24. Demonstrate professional plating, garnishing, and food presentation techniques.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)

- TCC3(9-12): I can integrate relevant information to produce multiple valid solutions.
- TI4(9-12): I can apply my strengths and anticipate challenges to reach my current and future goals.
- CCE4(9-12): I can communicate and express my understanding in an authentic, respectful and relevant way, using the most effective mode of expression.

Understandings: Students will understand that…	**Essential Questions:**
• Plants have distinct characteristics that allow for classification, cultivation, and culinary use. • Safe and effective planting, harvesting, handling, and preparation methods preserve food quality and safety. • Culinary techniques influence the flavor, texture, and nutritional value of fruits, vegetables, and herbs.	• How do different growing environments and media affect the characteristics and yield of produce? • Why do we use different preservation and cooking methods for different plant products? • What knowledge and skills are necessary to transform raw produce into edible, appealing dishes?
Students will know...	**Students will be able to...**
• Key characteristics of common fruits, vegetables and herbs. • Optimal conditions for greenhouse and field crop cultivation. • Cooking and preservation techniques for plant products. • Universal agricultural and kitchen safety protocols.	• Grow crops under optimal conditions from seed to harvest. • Identify and classify produce based on categories. • Clean, cut, prepare, preserve and produce recipes with appropriate kitchen equipment and cooking techniques. • Operate farm equipment safely and efficiently.

Key Vocabulary: Root crop, leafy green, herb, fruiting crop, dice, julienne, chiffonade, sauté, braise, steam, bake, simmer, pickle, preserve, knife cuts, orchard, NFT table, growing media, irrigation

Assessment Evidence

Performance Tasks:	**Other Evidence:**
Summative: Vegetable Tart Lab Interim: Plant Identification Project:	Formative: Equipment safety checklist and reflection.

Learning Plan
● Guided greenhouse and field modeling, planting and cultivation TI4(9-12) ● Produce identification stations with peer discussion CCE4(9-12) ● Cooking labs focused on knife skills, baking techniques and preservation TCC3(9-12) ● Orchard field trip with identification activity and proper harvesting modeling TI4(9-12) ● Recipe modification lab using local produce TCC3(9-12), CCE4(9-12)
Teacher Resources: Primary agricultural extension publications, Herb and vegetable identification flashcards, The Culinary Professional textbook, Other resources will be added as needed to accommodate current industry trends.

Unit 3 - Fish and Shellfish Production and Preparation

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

AFNR CAREER CLUSTER CONTENT STANDARDS

- CT-AQ.07.03.02.a: Identify equipment and handling facilities used in modern aquaculture production.
- CT-AQ.04.01.03.b: Evaluate the health and productivity of fish and shellfish populations.
- K33, L34, L44: Monitor recipe modifications; demonstrate knife and equipment handling; food presentation.

CONNECTICUT CAREER & TECHNICAL EDUCATION PERFORMANCE STANDARDS & COMPETENCIES

B. Food Safety and Sanitation: 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.
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.

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.
14. Demonstrate professional skills for a variety of cooking methods including roasting, broiling, smoking, grilling, sautéing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies.
15. Utilize weight and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques.
16. Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding a variety of foods.
17. Prepare various meats, seafood, and poultry using safe handling and professional preparation techniques.
18. Prepare various stocks, soups, and sauces using safe handling and professional preparation techniques.
19. Prepare various fruits, vegetables, starches, legumes, dairy products, fats, and oils using safe handling and professional preparation techniques.
23. Prepare breakfast meats, eggs, cereal grains, and batter products using safe handling and professional preparation techniques.
24. Demonstrate professional plating, garnishing, and food presentation techniques.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)
TCC2(9-12): I can evaluate evidence from multiple perspectives, and recognize their limitations and implications, in order to justify new conclusions.
DE1(9-12): I can acknowledge, process, and respond appropriately to others' comments and perspectives.
CCE3(9-12): I can show initiative in prompting group discourse and fostering collaboration among others, providing actionable feedback, and working with others to solve problems and/or design products.

Understandings: Students will understand that…

- The difference between aquaculture and hydroponic systems and how they must be monitored for biological and environmental health.
- Shellfish and fish require safe handling procedures from harvest to preparation.
- Cooking methods affect the texture, safety, and presentation of seafood.

Essential Questions:

- What are the benefits and limitations of aquaculture and hydroponic systems?
- How do we ensure fish and shellfish are safe and sustainable to consume?
- What skills are needed to process and prepare seafood?

Students will know...

- Major species of fish and shellfish and how they are raised or harvested.
- Safe seafood handling protocols and cooking techniques.

Students will be able to...

- Shuck shellfish and fillet finfish properly.
- Apply correct food safety and sanitation practices for seafood.
- Cook seafood using methods such as steaming, sautéing, roasting, and frying.

Key Vocabulary: Finfish, shellfish, aquaculture, hydroponic, bivalve, mollusk, fillet, shuck, dredge, marinade, steam, sear, seafood safety

Assessment Evidence

Performance Tasks:
Summative: Tilapia Cake Lab
Interim: Filleting fish and shucking shellfish lab

Other Evidence:
Formative: Shellfish identification quiz
Formative: Peer evaluation of lab sanitation

Learning Plan
• Aquaculture and Hydroponic system health checklist project TCC2(9-12) • Seafood ID lab and cooking demonstration CCE3(9-12) • Seafood cooking labs CCE3(9-12) • Field Trip to DEEP facility TCC2(9-12)
Teacher Resources: Aquaculture equipment manuals, Seafood handling and HACCP guidelines, Culinary seafood preparation videos, The Culinary Professional textbook, Other resources will be added as needed to accommodate current industry trends.

Unit 4 - Meat and Dairy Products

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

AFNR CAREER CLUSTER CONTENT STANDARDS

- AS.02.02.01.a.Identify technology and equipment used in animal systems that support a safe and abundant food supply.
- FPP.03.01.04.a.Describe foods and byproducts derived from different classifications of food products (e.g., meat, egg, poultry, fish, dairy, fruits, vegetables, grains, legumes, oilseeds,

CONNECTICUT CAREER & TECHNICAL EDUCATION PERFORMANCE STANDARDS & COMPETENCIES

B. Food Safety and Sanitation: 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.
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.

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.
14. Demonstrate professional skills for a variety of cooking methods including roasting, broiling, smoking, grilling, sautéing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies.
15. Utilize weight and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques.
16. Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding a variety of foods.
17. Prepare various meats, seafood, and poultry using safe handling and professional preparation techniques.
18. Prepare various stocks, soups, and sauces using safe handling and professional preparation techniques.
19. Prepare various fruits, vegetables, starches, legumes, dairy products, fats, and oils using safe handling and professional preparation techniques.
23. Prepare breakfast meats, eggs, cereal grains, and batter products using safe handling and professional preparation techniques.
24. Demonstrate professional plating, garnishing, and food presentation techniques.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)
AA1(9-12): I can evaluate different approaches and justify the best pathway to success.
TI2(9-12): I can evaluate my objectives and a variety of credible resources to find the best solutions for any challenge.
CCE2(9-12): I can give and receive actionable and relevant feedback with openness to be able to determine meaningful revisions for success.

Understandings: Students will understand that...

- Butchery, dairy processing, and cooking methods impact the quality, taste, and safety of animal products.
- Equipment use and technique are essential for accurate fabrication and preparation.
- Responsible sourcing and safety protocols protect both animals and consumers.

Essential Questions:

- How does fabrication affect meat product usage?
- What is the difference between types of dairy products and how are they made?
- How do we ensure meat and dairy are prepared safely?

Students will know…

- Different types of meat cuts and dairy processes.
- Proper techniques for butchery and cheese making.
- Food safety practices related to animal products.

Students will be able to...

- Fabricate basic cuts from whole poultry or meat.
- Prepare mozzarella and ricotta cheeses.
- Apply food safety techniques during meat/dairy handling.
- Use meats and dairy in original recipes.

Key Vocabulary: Primal/subprimal cut, pasteurization, homogenization, whey, curd, rendering, searing, pan-fry, foodborne illness

Assessment Evidence

Performance Tasks:
Summative: Poultry carcass breakdown and fabrication labs
Interim: Cheese making labs and recipe creation

Other Evidence:
Formative: Butchery diagram quiz
Formative: Sensory evaluation of dairy textures/flavors

Learning Plan

- Butchery demonstration and students labs TI2(9-12)
- Dairy production video, demonstration and labs CCE2(9-12)
- Taste test with ethical sourcing discussion AA1(9-12)

- Kitchen Lab AA1(9-12)
- Written Assessment TI2(9-12)

Teacher Resources: Meat fabrication guides and charts, USDA meat/dairy inspection handbook/guidelines, The Culinary Professional textbook, Other resources will be added as needed to accommodate current industry trends.

Unit 5 - Basic Cooking Techniques and Recipe Reading

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

CONNECTICUT CAREER & TECHNICAL EDUCATION PERFORMANCE STANDARDS & COMPETENCIES

E. Food Safety: Evaluate factors that affect food safety, from production through consumption.
11. Determine conditions and practices that promote safe food handling, production and consumption.

G. Safety Issues: Demonstrate procedures applied to safety issues.
16. Demonstrate procedures applied to safety issues.

C. Food Service Equipment: Demonstrate industry standards in selecting,using, and maintaining food production and food service equipment.
8. Operate and maintain tools and equipment following safety procedures and OSHA requirements.
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 smallwares.

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.

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.
14. Demonstrate professional skills for a variety of cooking methods including roasting, broiling, smoking, grilling, sautéing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies.
15. Utilize weight and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques.
16. Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding a variety of foods.
22. Prepare breads, baked goods, and desserts using safe handling and professional preparation techniques.
23. Prepare breakfast meats, eggs, cereal grains, and batter products using safe handling and professional preparation techniques.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)

TI3(9-12): I can formulate and investigate probing questions to further my learning.
P1(9-12): I can self-reflect and seek feedback to build upon my strengths, apply those strengths to overcome obstacles, and share my strategies with others.
CCE4(9-12): I can communicate and express my understanding in an authentic, respectful and relevant way, using the most effective mode of expression.

Understandings: Students will understand that...

- Cooking methods, timing, and accurate measurement directly impact food quality.
- Recipes are tools for consistency, but they must be interpreted and adjusted.
- Knowledge of culinary language supports independent and collaborative success in the kitchen.

Essential Questions:

- Why are time and temperature important in cooking?
- How do we read and adapt recipes for different purposes?
- What tools and methods help us cook safely and precisely?

Students will know...

- Cooking terms and techniques
- Measurement tools and conversions
- Proper procedures for using kitchen equipment

Students will be able to...

- Read and scale recipes accurately
- Select appropriate tools for tasks
- Apply cooking methods such as sautéing, roasting, and simmering
- Evaluate final products based on texture, flavor, and presentation

Key Vocabulary: Mise en place, volume, weight, tare, sauté, stir fry, roast, bake, steam, simmer, scale, conversion, standardized recipe, dry measurements, liquid measurements

Assessment Evidence

Performance Tasks:
Interim: Recipe Reading Quiz

Other Evidence:
Formative: Tool ID and Measurement Quiz

Summative: Portuguese Kale, chorizo and herb soup lab	Formative: Peer critique of recipe execution
Learning Plan	
• Recipe reading mini-lessons TI3(9-12) • Kitchen Lab P1(9-12) • Peer tasting and reflection CCE4(9-12) • Written Assessment P1(9-12)	
Teacher Resources: The Culinary Professional textbook, Standardized recipe templates, Instructional cooking and measurement videos, Other resources will be added as needed to accommodate current industry trends.	

Unit 6 - Foraged and Local Foods

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

AFNR CAREER CLUSTER CONTENT STANDARDS

- AS.09.01.01.a–07.a: Identify bees and mushroom types; explain pollination; use tools and harvesting practices.
- NRS.01.02.02.a. Define the characteristics used to identify herbaceous plants.

CONNECTICUT CAREER & TECHNICAL EDUCATION PERFORMANCE STANDARDS & COMPETENCIES

J. Planning Menu Items: Demonstrate menu planning based on standardized recipes.
26. Describe and apply menu planning principles to develop, adjust, and modify recipes and menus.
27. Analyze food, equipment, and supplies needed for menus.

K. Food Preparation: Demonstrate preparation for all menu categories to produce a variety of food products.
28. Describe and demonstrate a variety of cooking methods such as roasting, baking, broiling, smoking, grilling, sautéing, frying, deep frying, braising, stewing, poaching, steaming, and convection.
29. Describe the fundamentals of time and temperature as they relate to cooking, cooling, and reheating of a variety of foods.
31. Describe and demonstrate the process for preparing various stocks, soups, and sauces.
32. Describe and demonstrate the process for preparing various fruits, vegetables, starches, and farinaceous items.
34. Describe and demonstrate the process for preparing baked goods and desserts.
35. Describe and demonstrate the process for preparing eggs, grains, and batter products.
36. Describe and demonstrate techniques for food presentation.

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.
14. Demonstrate professional skills for a variety of cooking methods including roasting, broiling, smoking, grilling, sautéing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies.
15. Utilize weight and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques.
16. Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding a variety of foods. Prepare various stocks, soups, and sauces using safe handling and professional preparation techniques.
19. Prepare various fruits, vegetables, starches, legumes, dairy products, fats, and oils using safe handling and professional preparation

techniques.
22. Prepare breads, baked goods, and desserts using safe handling and professional preparation techniques.
23. Prepare breakfast meats, eggs, cereal grains, and batter products using safe handling and professional preparation techniques.
24. Demonstrate professional plating, garnishing, and food presentation techniques.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)
DE4(9-12): I can work respectfully with all members of my community and support the needs of others.
AA4(9-12): I can create opportunities to extend my learning by remaining open-minded in any situation.
TCC4(9-12): I can integrate my learning to adapt to experiences in the classroom, career and life.

Understandings: Students will understand that...	**Essential Questions:**
• Foraging connects us to local ecology and seasonal food sources. • Food safety is critical when working with wild products. • Honey and maple syrup are the results of complex biological and environmental systems.	• How can we responsibly harvest food from natural ecosystems? • What knowledge is needed to safely forage mushrooms and forest plants? • What can we learn about sustainability through beekeeping and syrup production?
Students will know...	**Students will be able to...**
• How to identify edible wild plants of the Northeast • Steps for making maple syrup, harvesting honey and seasonal plants • Foraging safety guidelines • How to identify hardwood and softwood tree species • Equipment related to the production of maple syrup • How to retrieve honey	• Identify trees and edible forest plants • Properly tap sugar maple trees and process maple sap • Use forest foods in recipes • Safely harvest and process honey • Inoculate hardwood logs with shiitake mushroom spawn • Produce recipes using forest foods • Harvest honey from a hive

Key Vocabulary: Sapwood, heartwood, evaporator, drone, nectar, pollination, shiitake, fiddlehead, ramps, chives, autumn olive berries, wild violets, dandelion, apiary

Assessment Evidence

Performance Tasks:	**Other Evidence:**
Summative: Maple Syrup Production Lab Formative; Maple Syrup Lab Interim: Beekeeping/Honey Lab	Formative: Violet/Dandelion Lab Formative: Student-created foraging safety posters Formative: Tree identification Quiz

Interim: Ramp Lab	
Learning Plan	
• Sugar maple tree identification, tapping walkthrough and student tapping lab AA4(9-12) • Maple syrup production and maple syrup lab DE4(9-12) • Identification of locally available foraged foods including instructional videos and demonstrations TCC4(9-12) • Beekeeping demonstration, harvesting honey and honey lab DE4(9-12) • Field trip to local goat farm for tour and to purchase supplies for foraging/local foods labs DE4(9-12) AA4(9-12) • Edible flower identification, harvesting and lab DE4(9-12) • Inoculate hardwood logs with shiitake mushroom spawn, grow and harvest TCC4(9-12)	
Teacher Resources: CT DEEP tree identification tools, beekeeping guides and local apiary videos, wild edible field books and recipes, The Culinary Professional textbook, Instructional cooking videos, other resources will be added as needed to accommodate current industry trends.	

LEADERSHIP DEVELOPMENT CURRICULUM

LEADERSHIP DEVELOPMENT

REGION 14 SCHOOL DISTRICT
VISION OF A LEARNER

Grade Level(s): 11-12

Curriculum Author(s): Kathleen Gorman

Course Description:
This course is designed to equip students with the leadership, communication, and organizational skills necessary for success in agriculture-related careers and participation in the National FFA Organization. Through hands-on activities, students will develop teamwork, public speaking, problem-solving, and decision-making abilities while exploring key leadership principles in the context of agriscience. Topics covered will include goal setting, time management, parliamentary procedure, advocacy, and event planning. Students will also engage in leadership projects, career exploration, and service-learning opportunities to enhance their personal growth and professional readiness. Whether aspiring to be agricultural entrepreneurs, educators, or industry leaders, this course provides the foundation for students to become effective advocates for agriculture and their communities. Every student must maintain and document an approved supervised agriculture experience (SAE) project and actively participate in the Woodbury FFA Chapter to develop premier leadership, personal growth, and career success through attending FFA meetings and participating in chapter events and planning.

Year At A Glance			
Unit Title	**Overarching Essential Question**	**Overarching Enduring Understanding**	**Vision of A Learner "I Can" Statements**
Leadership Foundations	What does it mean to be an effective leader, and how can self-awareness improve leadership potential?	Effective leadership is rooted in self-awareness, understanding leadership principles, and identifying personal strengths and areas for growth.	CCE3(9-12), CCE4(9-12), TI1(9-12), P1(9-12)
Communication Mastery	How can effective communication build trust and influence in leadership roles?	Communication is a critical skill that involves listening, delivering clear messages, and adapting to different audiences and contexts.	CCE1(9-12), CCE3(9-12), CCE4(9-12), DE1(9-12), P2(9-12), P3(9-12)
Teamwork and Collaboration	What makes a team successful, and how can leaders foster collaboration and resolve conflict?	Successful teamwork relies on trust, clear communication, and a leader's ability to guide diverse individuals toward a shared goal.	TCC3(9-12), TCC4(9-12), CCE1(9-12), CCE3(9-12), DE1(9-12)
Leadership Application in Agriculture	How do leadership roles within FFA and other agricultural organizations prepare students for real-world challenges?	Leadership opportunities in agri-science organizations provide practical experiences that build confidence, decision-making skills, and the ability to lead others effectively.	TI1(9-12), CCE1(9-12), CCE2(9-12), CCE4(9-12), DE2(9-12), AA1(9-12)
Ethics and Advocacy	How can leaders balance ethical decision-making with advocating for change in agriculture?	Ethical leadership requires integrity and thoughtful decision-making, while advocacy involves using one's voice to influence policies and support the agricultural industry.	CCE2(9-12), CCE3(9-12), CCE4(9-12), DE1(9-12), DE4(9-12)
Capstone Leadership Project	How can leaders create meaningful change by applying their	Leadership is about action and impact; applying skills to meaningful projects demonstrates the ability to inspire and influence change.	TI1(9-12), CCE4(9-12), DE1(9-12), AA1(9-12)

UNIT 1 - LEADERSHIP FOUNDATIONS

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

National Agriculture, Food, and Natural Resources

ECL.05.01 Identify characteristics and behaviors that constitute ethical, efficient, and effective leadership.

ECL.05.02 Demonstrate leadership through advocacy for AFNR-related issues.

Common Core State Standards

SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively

SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

W.11-12.2 Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

W.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

W.11-12.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

Vision of A Learner Attributes: Students will be able to independently use their learning to...

COLLABORATE AND COMMUNICATE EFFECTIVELY

CCE3: I can show initiative in prompting group discourse and fostering collaboration among others, providing actionable feedback, and working with others to solve problems and/or design products.

CCE4: I can express my thoughts and ideas, both verbally and in writing, in order to defend my perspective. I can do this via essays, performance-based projects, whole group, and/or small group discussions.

TAKE INITIATIVE

TI1: I can implement a realistic plan and adapt when necessary to achieve my goals.

PERSEVERE

P1: I can self-reflect and seek feedback to build upon my strengths, apply those strengths to overcome obstacles, and share my strategies with others.

Understandings: Students will understand that…

- Effective leadership is rooted in self-awareness, understanding leadership principles, and identifying personal strengths and areas of growth.

Essential Questions:

- What does it mean to be a leader in agriscience and beyond?
- How can understanding personal leadership traits and styles improve effectiveness as a leader?

• Leadership involves the ability to inspire, guide, and influence others toward achieving common goals.	• Why is self-awareness important for personal and professional growth?
Students will know... • The definition and importance of leadership in agriculture and related fields. • Traits and characteristics of effective leaders. • Different leadership styles (e.g., autocratic, democratic, transformational) and their applications. • The value of self-awareness in identifying leadership strengths and areas for development.	**Students will be able to...** • Define leadership and describe its importance in personal, professional, and agriculture. • Identify and analyze personal leadership style through self-assessment tools. • Reflect on leadership traits and set specific goals for growth as a leader.
Key Vocabulary: accountability, autocratic leadership, charisma, collaboration, decision-making, democratic leadership, empathy, goal-setting, influence, integrity, leadership, leadership styles, leadership traits, motivation, resilience, responsibility, self-awareness, servant leadership, transformational leadership, vision	
Assessment Evidence	
Performance Tasks: *Classwork:* Students will explore their personal leadership traits and styles to better understand how they influence others. **P1** *Classwork:* Students will demonstrate their understanding of leadership traits through creative teamwork. **AA3** *Classwork:* Students will practice leadership skills in a hands-on, collaborative activity. **CCE3** *Interim:* Students will analyze the traits and leadership styles for an influential leader in agriculture or other fields.	**Other Evidence:** *Interim:* Students will reflect on their leadership development and set actionable goals. **TI1** *Summative:* Students will create a portfolio showcasing their understanding of leadership foundations. **CCE4**
Learning Plan	
• Students will self-evaluate to identify their personal leadership traits and styles. • Students will showcase their understanding of the concepts of individual leadership.	
Teacher Resources: Habitudes, FFA Edition Teacher Created Resources	

UNIT 2 - COMMUNICATION MASTERY

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

National Agriculture, Food, and Natural Resources

CRP.12.01 Contribute to team-oriented projects and build consensus to accomplish results using cultural global competence in the workplace and community.

CRP.12.02 Create and implement strategies to engage team members to work toward team and organizational goals in a variety of workplace and community situations (e.g., meetings, presentations, etc.).

Common Core State Standards

SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively

SL.11-12.3 Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing stance, premises, links among ideas, word choice, points of emphasis, and tone used.

SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

SL.11-12.6 Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate.

Vision of A Learner Attributes: Students will be able to independently use their learning to...

Collaborate and Communicate Effectively

CCE1 I can initiate discussion with my peers and teachers about a variety of topics, respecting differing viewpoints, actively listening to others, and responding thoughtfully with peer-reviewed evidence that is free of bias.

CCE3 I can show initiative in prompting group discourse and fostering collaboration among others, providing actionable feedback, and working with others to solve problems and/or design products.

CCE4 I can communicate and express my understanding in an authentic, respectful and relevant way, using the most effective mode of expression.

Demonstrate Empathy

DE1 I can acknowledge, process, and respond appropriately to others' comments and perspectives.

Persevere

P2 I can strengthen my weaknesses by identifying, initiating, and practicing appropriate strategies to become confident in my ability to overcome my challenges.

P3 I can accept constructive feedback and use setbacks to adjust my learning journey in order to reach my goals.

Understandings: Students will understand that… ● Effective communication is critical for building trust, inspiring others, and leading teams successfully. ● Active listening and nonverbal communication are as important as verbal skills in leadership. ● Adapting communication styles to suit different audiences enhances clarity and impact.	**Essential Questions:** ● How does effective communication influence leadership success? ● Why is active listening essential for building relationships and trust as a leader? ● How can nonverbal communication impact the way a message is received? ● What strategies can leaders use to tailor their communication to diverse audiences?
Students will know… ● The components of effective communication include verbal, nonverbal, and written skills. ● Techniques for active listening and providing constructive feedback. ● The role of nonverbal communication, such as body language, facial expressions, and tone of voice ● Strategies for adapting communication styles to meet the needs of various audiences. ● Common barriers to effective communication and how to overcome them.	**Students will be able to…** ● Demonstrate active listening by summarizing and responding to others' points during discussions. ● Identify and use appropriate nonverbal cues to reinforce verbal messages. ● Deliver a clear, engaging, and well-organized speech on a leadership-related topic. ● Tailor written and verbal communication to suit different audiences, such as peers, professionals, or community members. ● Evaluate the effectiveness of their own communication and identify areas of improvement.
Key Vocabulary: active listening, audience, barrier to communication, body language, clarity, constructive feedback, empathy, feedback, message, nonverbal communication, paralanguage, perception, professional communication, public speaking, receiver, sender, tone, verbal communication, visual aids, written communication	
Assessment Evidence	
Performance Tasks: *Classwork:* Students will practice active listening and providing constructive feedback. **CCE1** *Classwork:* Students will identify and practice effective nonverbal communication strategies. *Classwork:* Students will adapt their communication style to different audiences. **CCE4**	**Other Evidence:** *Summative:* Students will reflect on their growth in communication skills during the unit. **DE1**

Classwork: Students will identify and solve common communication barriers in leadership. *Interim*: Students will demonstrate professional written communication skills. **CCE3** *Summative*: Students will deliver a clear and engaging speech on a leadership topic. **P2**	

Learning Plan

- Students will write a reflection piece on their personal communication skills and identify areas for improvement in their communication style. **P3**
- Students will deliver a clear and engaging speech on a topic. **P2**

Teacher Resources:
Habitudes, FFA Edition
Teacher Created Resources

UNIT 3 - TEAMWORK AND COLLABORATION

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

National Agriculture, Food, and Natural Resources

CRP.12.01 Contribute to team-oriented projects and build consensus to accomplish results using cultural global competence in the workplace and community.

CRP.12.02 Create and implement strategies to engage team members to work toward team and organizational goals in a variety of workplace and community situations (e.g., meetings, presentations, etc.).

Common Core State Standards

SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively

SL.11-12.3 Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing stance, premises, links among ideas, word choice, points of emphasis, and tone used.

SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

SL.11-12.6 Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)

Think Critically and Creatively

TCC3 i can integrate relevant information to produce multiple valid solutions.

TCC4 I can integrate my learning to adapt to experiences in the classroom, career, and life.

Collaborate and Communicate Effectively

CCE1 I can initiate discussion with my peers and teachers about a variety of topics, respecting differing viewpoints, actively listening to others, and responding thoughtfully with peer-reviewed evidence that is free of bias.

CCE3 I can show initiative in prompting group discourse and fostering collaboration among others, providing actionable feedback, and working with others to solve problems and/or design products.

Demonstrate Empathy

DE1 I can acknowledge, process, and respond appropriately to others' comments and perspectives.

Understandings: Students will understand that...	**Essential Questions:**
● Effective teamwork requires trust, communication, and shared goals.	● What are the qualities of an effective team, and how can leaders contribute to team success?

• Leaders play a key role in fostering collaboration and resolving conflicts within a team. • Diverse perspectives within a team can lead to better decision-making and innovation. • Collaboration involves balancing individual contributions with the needs of the group.	• How can communication and trust be built within a team? • What strategies can leaders use to resolve conflicts and encourage collaboration? • How does diversity within a team enhance its performance? • Why is accountability important in a collaborative setting?
Students will know... • The characteristics of effective teams (e.g., trust, communication, shared goals, accountability). • Common team roles (e.g., leader, facilitator, recorder) and their importance. • Strategies for resolving conflicts in a team setting. • The importance of trust and mutual respect in fostering collaboration. • How diversity of perspectives and skills contributes to team success. • Barriers to teamwork and how to overcome them.	**Students will be able to...** • Identify and describe the key elements of an effective team. • Demonstrate the ability to take on various roles within a team, including leadership and support roles. • Resolve team conflicts using effective communication and problem-solving strategies. • Foster collaboration by building trust, setting shared goals, and encouraging participation. • Evaluate their own performance and the performance of their team in collaborative settings. • Reflect on how diversity and individual strengths contribute to the success of a team.
Key Vocabulary: accountability, active listening, collaboration, conflict resolution, consensus, diversity, facilitator, feedback, goal setting, group dynamics, mutual respect, problem-solving, roles, shared goals, supportive environment, team accountability, team building, team leader, trust, workload distribution	
Assessment Evidence	
Performance Tasks: *Classwork:* Students will demonstrate their understanding of team roles and practice working collaboratively. **CCE3** *Classwork:* Students will practice resolving conflicts and fostering collaboration within a team. **CCE3** *Classwork:* Students will engage in activities that build trust and improve team dynamics. *Classwork:* Students will create a shared vision and mission statement for their team.	**Other Evidence:** *Summative*: Students will evaluate their team's collaboration and their personal contributions. **DE1**

Interim: Students will explore the value of diversity in teamwork and demonstrate how diverse perspectives enhance outcomes. **DE1** *Summative:* Students will work as a team to solve a real-world agricultural problem. **CCE1**	

Learning Plan

- Students will participate in activities that simulate team conflict and apply strategies to resolve issues and foster collaboration. **CCE1**
- Students will complete exercises designed to build trust, strengthen communication, and improve overall team dynamics.
- Students will apply collaboration and critical thinking to solve a real-world agricultural problem. **TCC3, TCC4**
- Students will evaluate their team's collaboration process and reflect on their personal contributions and growth throughout the unit. **DE1**

Teacher Resources:
Habitudes, FFA Edition
Teacher Created Resources

UNIT 4 - LEADERSHIP APPLICATION IN AGRICULTURE

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

National Agriculture, Food, and Natural Resources

ECL.05.02 Demonstrate leadership through advocacy for AFNR-related issues.

CRP.02.01 Use strategic thinking to connect and apply academic learning, technical knowledge, and skills to solve problems in the workplace and community.

CRP.05.01 Assess, identify, and synthesize the information and resources needed to make decisions that positively impact the workplace and community.

CRP.05.02 Make, defend and evaluate decisions at work and in the community using information about the potential environmental, social and economic impacts.

CPR.06.01 Synthesize information, knowledge, and experience to generate original ideas and challenge assumptions in the workplace and community.

CRP.06.03 Create a nd execute a plan of action for new ideas and introduce innovations to workplace and community organizations.

Common Core State Standards

SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively

SL.11-12.3 Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing stance, premises, links among ideas, word choice, points of emphasis, and tone used.

SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

SL.11-12.6 Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate.

W.11-12.2 Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)

Take Initiative

TI1 I can implement a realistic plan and adapt when necessary to achieve my goals.

Collaborate and Communicate Effectively

CCE1 I can initiate discussion with my peers and teachers about a variety of topics, respecting differing viewpoints, actively listening to others, and responding thoughtfully with peer-reviewed evidence that is free of bias.

CCE2 I can give and receive actionable and relevant feedback with openness to be able to determine meaningful revisions for success.

CCE4 I can communicate and express my understanding in an authentic, respectful and relevant way, using the most effective mode of expression.

Demonstrate Empathy

DE2 I can honor my own feelings and show empathy toward others through my actions.

Adapt and Adjust

AA1 I can evaluate different approaches and justify the best pathway to success.

Understandings: Students will understand that... ● Leadership opportunities in FFA and other agricultural organizations provide practical experiences that enhance leadership skills and prepare students for real-world challenges. ● Parliamentary procedure and meeting facilitation are essential tools for organized and effective leadership. ● Leadership roles require responsibility, collaboration, and the ability to inspire and guide others toward shared goals.	**Essential Questions:** ● How can leadership roles in FFA and other agricultural organizations prepare students for future success? ● Why is parliamentary procedure important for effective leadership and meeting facilitation? ● What qualities and skills make a leader successful in agriculture-related organizations? ● How can taking on leadership roles positively impact personal growth and the success of a group? ● What opportunities exist for students to practice and apply leadership in agriculture?
Students will know... ● The structure, purpose, and opportunities within FFA and other agricultural organizations. ● The fundamentals of parliamentary procedure, including motions, amendments, and voting processes. ● The responsibilities and expectations of various leadership roles (e.g., president, vice president, secretary). ● Strategies for effectively facilitating meetings and leading group discussions. ● The importance of setting goals and inspiring others in leadership roles.	**Students will be able to...** ● Identify and describe leadership opportunities available in FFA and other agriculture organizations. ● Demonstrate basic parliamentary procedure skills, including making and seconding motions, debating, and voting. ● Take on and fulfill specific leadership roles in a mock or real FFA meeting. ● Plan, organize, and lead a small group activity or event related to agriculture. ● Reflect on their performance as a leader and identify areas for improvement. ● Set goals for their involvement in agricultural leadership and plan steps to achieve them.

Key Vocabulary:
amendment, chairperson, debate, delegation, FFA, facilitation, goal setting, leadership role, main motion, meeting agenda, minutes, parliamentary procedure, point of order, presiding officer, quorum, second (a motion), service leadership, teamwork, voting, youth leadership development

Assessment Evidence	
Performance Tasks: *Classwork:* Students will research and understand various leadership roles in FFA and other agricultural organizations. *Classwork:* Students will practice basic parliamentary procedure skills. **TI2** *Interim:* Students will demonstrate their ability to plan and facilitate a small meeting. **CCE1** *Interim:* Students will create a detailed leadership plan for an agricultural event or initiative. **CCE4** *Summative:* Students will demonstrate mastery of parliamentary procedure and leadership skills in a realistic setting. **AA1**	**Other Evidence:** *Interim:* Students will reflect on their experience in a leadership role. **DE2** *Summative:* Students will compile a portfolio showcasing their understanding and application of leadership skills during the unit. **CCE2**

Learning Plan

- Participate in a series of in-class activities to practice motions, amendments, voting, and other basic parliamentary procedure skills. **TI1**
- Plan an agenda and facilitate a short meeting using parliamentary procedure. **CCE1**
- Create a written leadership plan for an agricultural event or initiative. **CCE4**

Teacher Resources:
Habitudes, FFA Edition
Teacher Created Resources

UNIT 5 - ETHICS AND ADVOCACY

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

National Agriculture, Food, and Natural Resources

CRP.09.01 Model characteristics of ethical and effective leaders in the workplace and community (e.g., integrity, self-awareness, self-regulation, etc.).

CRP.09.02 Implement personal management skills to function effectively in the workplace (e.g., time management, planning, prioritizing, etc.).

CRP.09.03 Demonstrate behaviors that contribute to a positive morale and culture in the workplace and community (e.g., positively influencing others, effectively communicating, etc.).

Common Core State Standards

SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively

SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

SL.11-12.6 Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate.

W.11-12.1 Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

W.11-12.2 Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

W.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

W.11-12.7 Conduct short as well as more sustained research projects to answer a question (including self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

W.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches, effectively; assess the strengths and limitations of each source in terms of task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and reliance on any one source and following a standard format of citation.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)

Collaborate and Communicate Effectively

CCE2 I can give and receive actionable and relevant feedback with openness to be able to determine meaningful revisions for success.
CCE3 I can show initiative in prompting group discourse and fostering collaboration among others, providing actionable feedback, and working with others to solve problems and/or design products.
CCE4 I can communicate and express my understanding in an authentic, respectful and relevant way, using the most effective mode of expression.

Demonstrate Empathy

DE1 I can acknowledge, process, and respond appropriately to others' comments and perspectives.
DE4 I can work respectfully with all members of my community and support the needs of others.

Understandings: Students will understand that...

- Ethical leadership involves making decisions guided by integrity, fairness, and respect for others.
- Advocacy is a powerful tool for leaders to influence change and promote important causes in agriculture and beyond.
- Ethical dilemmas often raise in leadership roles, requiring thoughtful decision-making and consideration of diverse perspectives.
- Leaders have a responsibility to use their influence to support their communities and industries.

Essential Questions:

- What does it mean to be an ethical leader, and why is ethical decision-making important?
- How can leaders use advocacy to influence change in agriculture and their communities?
- What are common ethical challenges leaders face in agriculture, and how can they address them?
- How can a leader balance personal values with the needs of their organization or community?
- What strategies can leaders use to advocate effectively for issues they care about?

Students will know...

- The definition and importance of ethical leadership and advocacy.
- Common ethical dilemmas in agriculture and strategies for resolving them.
- The steps involved in advocating for a cause include research, communication, and influencing decision-makers.
- The role of personal and organizational values in ethical leadership.
- Tools and strategies for effectively communicating and promoting advocacy messages.

Students will be able to...

- Identify and analyze ethical dilemmas and propose fair and just solutions.
- Reflect on personal values and how these influence their decision-making as leaders.
- Develop and deliver and advocacy message or campaign for an agricultural or community issue.
- Demonstrate strategies for influencing decision-makers and engaging audiences in advocacy efforts.
- Collaborate with peers to create and present solutions to ethical challenges.
- Evaluate the ethical dimensions of leadership decisions and their impact on individuals, organizations, and communities.

Key Vocabulary: advocacy, bias, code of ethics, conflict of interest, credibility, decision-making, dilemma, empathy, ethical leadership, ethics, fairness, integrity, moral compass, objectivity, persuasion, responsibility, stakeholder, transparency, values, voice, whistleblower

Assessment Evidence	
Performance Tasks: *Classwork:* Students will analyze and discuss ethical dilemmas to practice ethical decision-making. **DE1** *Classwork:* Students will develop an advocacy message for an agricultural or community issue. **CCE4** *Interim:* Students will write a professional advocacy letter to influence a decision-maker. **CCE3** *Interim:* Students will analyze a case study to apply ethical leadership principles. **DE4** *Interim:* Students will debate an ethical issue in agriculture, demonstrating their understanding of diverse perspectives and viewpoints. *Summative:* Students will design and present an advocacy campaign on an agricultural or community issue. **CCE4**	**Other Evidence:** *Classwork:* Students will reflect on their personal values and how they influence leadership decisions. *Summative*: Students will compile a portfolio showcasing their understanding of ethics and advocacy. **DE4**
Learning Plan	
• Develop a clear and persuasive advocacy message (e.g., slogan, social media post, or infographic) addressing an agricultural or community issue of your choice. **CCE3** • Compose a formal letter advocating for change or awareness on a selected issue. **CCE3** • Participate in a classroom debate on a controversial agricultural issue. **CCE4** • Write a one-page reflection on personal values and how they influence your decision-making as a leader. **CCE2** • Work individually or in teams to create a comprehensive advocacy campaign that includes a mission, key messages, target audience materials, and an implementation plan. **CCE4**	
Teacher Resources: Habitudes, FFA Edition Teacher Created Resources	

Unit 6 - CAPSTONE LEADERSHIP PROJECT

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

National Agriculture, Food, and Natural Resources

ECL.03.03 Analyze similarities and differences between verbal, nonverbal, written, and visual communication methods.
ECL.04.01 Develop a communication plan that includes purpose, target audience, message, medium, and outcome evaluation.
ECL.04.02 Identify, apply, and demonstrate communication skills and methods per the communications plan.
ECL.05.01 Identify characteristics and behaviors that constitute ethical, efficient, and effective leadership.
ECL.05.02 Demonstrate leadership through advocacy for AFNR-related issues.
CRP.09.01 Model characteristics of ethical and effective leaders in the workplace and community (e.g., integrity, self-awareness, self-regulation, etc.).
CRP.09.02 Implement personal management skills to function effectively in the workplace (e.g., time management, planning, prioritizing, etc.).
CRP.09.03 Demonstrate behaviors that contribute to a positive morale and culture in the workplace and community (e.g., positively influencing others, effectively communicating, etc.).

Common Core State Standards

SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively
SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.
SL.11-12.6 Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate.
W.11-12.2 Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
W.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
W.11-12.7 Conduct short as well as more sustained research projects to answer a question (including self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
W.11-12.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

Vision of A Learner Attributes: Students will be able to independently use their learning to…

Take Initiative

TI1 I can implement a realistic plan and adapt when necessary to achieve my goals.

Collaborate and Communicate Evaluate

CCE4 I can communicate and express my understanding in an authentic, respectful and relevant way, using the most effective mode of expression.

Demonstrate Empathy

DE1 I can acknowledge, process, and respond appropriately to others' comments and perspectives.

Adapt and Adjust

AA1 I can evaluate different approaches and justify the best pathway to success.

Understandings: Students will understand that...

- Applying leadership skills in a real-world project demonstrates the ability to inspire change and lead effectively.
- Successful leadership projects require careful planning, teamwork, and adaptability.
- Leaders must evaluate the impact of their initiatives and reflect on lessons learned for future growth.
- Presenting and communicating a leadership project effectively is essential for inspiring others and creating meaningful change.

Essential Questions:

- How can leaders apply their skills to develop and execute a successful leadership project?
- What challenges might arise during a leadership project, and how can they be overcome?
- How does teamwork contribute to the success of a leadership initiative?
- Why is reflection important in leadership development?
- What strategies can leaders use to effectively present and communicate their projects to stakeholders?

Students will know...

- The steps involved in planning and executing a leadership project.
- Methods for evaluating the success and impact of a leadership initiative.
- The importance of teamwork, delegation, and collaboration in leadership.
- Effective presentation and communication techniques for sharing project outcomes.
- Strategies for reflecting on leadership experiences and setting future goals.

Students will be able to...

- Design and implement a leadership project that addresses a specific need or challenge.
- Work collaboratively with peers to organize and execute their initiative.
- Adapt to obstacles and challenges that arise during the project.
- Assess the effectiveness and impact of their leadership efforts.
- Present their project findings and leadership experience to an audience.
- Reflect on their growth as a leader and identify areas for continued development.

Key Vocabulary:

accountability, adaptability, collaboration, delegation, evaluation, feedback, implementation, impact assessment, innovation, leadership initiative, milestones, obstacles, outcomes, peer review, planning phase, presentation skills, reflection, stakeholders, sustainability, team dynamics

Assessment Evidence	
Performance Tasks: *Classwork:* Students will collaborate with their project teams to finalize details and prepare for implementation. **TI1** *Interim:* Students will evaluate their progress and troubleshoot any challenges in their leadership project. **AA1** *Summative:* Students will implement and document their leadership project. **P4**	**Other Evidence:** *Classwork:* Students will develop a structured proposal outlining their capstone leadership project. **CCE4** *Summative:* Students will present their leadership project, sharing key insights and results. **CCE4** *Summative:* Students will compile a portfolio showcasing their leadership journey throughout the capstone project. **DE1**
Learning Plan	
• Develop a structured written proposal for a leadership project, including the project's purpose, goals, timeline, resources needed, team roles, and evaluation plan. **CCE4** • Complete a progress report that assesses a project's current status, identifies any challenges faced, and outlines action steps for overcoming obstacles. **AA1** • Prepare and deliver a formal presentation summarizing a project's purpose, implementation process, challenges, results, and personal/team growth. **CCE4**	
Teacher Resources: Habitudes, FFA Edition Teacher Created Resources	

EXPLORATION INTO ANIMAL ASSISTED THERAPY CURRICULUM

Grade Level(s): 10-12	**Curriculum Author(s):** Kathleen Gorman

Course Description:
This course introduces students to the growing field of animal-assisted therapy (AAT) and its role in supporting human physical, emotional and psychological well-being. Students will explore the history, theory, and practical application of AAT across a variety of settings including healthcare, education, rehabilitation, and mental health services. Through a combination of classroom instruction, guest speakers, case studies and hands-on activities, students will learn about the human-animal bond, animal behavior and welfare, and the selection and training of therapy animals. Students will also examine ethical considerations, career pathways, and certifications processes related to animal-assisted therapy interventions. The course is designed to build empathy, communication, and observation skills while offering meaningful insights into the therapeutic value of animals. Students must be enrolled in the Ellis Clark Regional Agriscience and Technology Center to enroll in this course.

Year At A Glance			
Unit Title	**Overarching Essential Question**	**Overarching Enduring Understanding**	**Vision of A Learner "I Can" Statements**
The Human-Animal Bond	What makes the connection between humans and animals powerful enough to promote healing and improve well-being?	The human-animal bond is a deeply rooted relationship that can have measurable psychological, emotional, and physiological benefits when applied in therapeutic settings.	**TCC2(9-12), TCC3(9-12), CCE1(9-12), CCE3(9-12)**
Therapy in Action: Roles, Settings, and Impact	How are therapy animals used to meet the needs of diverse populations in various environments?	Animal-assisted therapy is a versatile and impactful tool that supports individuals across a range of settings, from hospitals to classrooms, but enhancing healing, motivation, and emotional support.	**CCE3(9-12), DE2(9-12), TI1(9-12), P4(9-12), AA1(9-12)**
Partners in Healing: Animal Selection, Care, and Ethics	How do we ensure that therapy animals are safe, effective, and ethically treated in their work?	Successful animal-assisted therapy relies on selecting suitable animals, prioritizing their welfare, and maintaining ethical standards that protect both the animals and the people they serve.	**TCC2(9-12), CCE2(9-12), CCE3(9-12), DE2(9-12), DE4(9-12), AA1(9-12)**

Unit 1 - THE HUMAN ANIMAL BOND

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

Agriculture, Food, and Natural Resource Standards

AS.01.01 Evaluate the development and implications of animal origin, domestication, and distribution on production practices and the environment.

AS.01.03 Analyze laws and sustainable practices that impact animal agriculture from a local, tribal, state, national, and global perspective.

AS.02.01 Explain management techniques that ensure animal welfare.

AS.06.01 Classify animals according to taxonomic classification systems and use (e.g., agricultural, companion, etc.).

Common Core State Standards

SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

W.11-12.2 Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

W.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

W.11-12.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

W.11-12.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

National Health Science Standards

2.1.1 Model verbal and nonverbal therapeutic communication.

2.3.2 Prepare examples of technical and informative writing.

3.1.1 Differentiate healthcare delivery systems and healthcare-related agencies.

3.1.3 Analyze the impact of emerging issues on healthcare delivery systems.

6.2.1 Discuss religious, social, and cultural values as they impact healthcare.

Vision of A Learner Attributes: Students will be able to independently use their learning to...

THINK CRITICALLY AND CREATIVELY

TCC2: I can evaluate evidence from multiple perspectives and recognize their limitations and implications, in order to justify new conclusions.

TCC3: I can integrate relevant information to produce multiple valid solutions.

COLLABORATE AND COMMUNICATE EFFECTIVELY

CCE1: I can initiate discussions with my peers and teachers about a variety of topics, respecting different viewpoints, actively listening to others, and responding thoughtfully with peer-reviewed evidence that is free of bias.

CCE3: I can show initiative in prompting group discourse and fostering collaboration among others, providing actionable feedback, and working with others to solve problems and/or design products.

Understandings: Students will understand that…

- The human-animal bond is a unique and meaningful relationship that can have a profoundly positive impact on emotional, social, and physical well-being.
- Animal-assisted therapy has evolved over time, shaped by cultural, medical, and social developments.
- Animal-assisted therapy, activities, and service animals play distinct roles in supporting people with varying needs.
- Interacting with animals can cause measurable changes in human brain chemistry, stress levels, and overall health.
- A person's background, personality, and life experiences shape how they bond with animals.
- The human-animal bond can be intentionally integrated into therapeutic practices to support healing and development.

Essential Questions:

- What is the human-animal bond, and why does it matter?
- How has the role of animals in therapy changed throughout history?
- What are the differences between therapy animals, service animals, and emotional support animals?
- What does science say about how animals affect human health?
- How do individual factors impact the human-animal bond?
- How is the human-animal bond used in real-life therapeutic settings?

Students will know...

- The definition and characteristics of the human-animal bond.
- Basic theories that explain why humans bond with animals.
- Key historical figures and events in the development of AAT.
- The timeline of major milestones in animal-assisted interventions.
- Definitions and legal distinctions among AAT, AAA, service animals, and emotional support animals.
- Appropriate contexts and uses for each type of animal support.
- Key physiological responses to human-animal interaction (e.g., oxytocin release, lowered cortisol).
- Psychological and emotional benefits of animal contact.
- How age, culture, trauma, and personal history influence relationships with animals.
- The role of animals in helping people cope with stress, grief, and isolation.

Students will be able to...

- Identify examples of the human-animal bond in everyday life.
- Describe how this bond can influence human emotions and behaviors.
- Trace the evolution of therapy animal use across different time periods and cultures.
- Analyze how public perception of animals in healthcare has changed.
- Classify the animals into the appropriate therapy category based on a given scenario.
- Explain the purpose and training requirements of each therapy category of animal.
- Summarize scientific findings that support the benefits of AAT.
- Interpret basic data or research outcomes related to AAT effectiveness.
- Analyze how different populations experience and benefit from

• Examples of programs and professions that use AAT. • Populations and conditions that commonly benefit from animal-assisted interventions.	animal interventions. • Explain why AAT might be more effective for some individuals than others. • Identify how the human-animal bond is applied in different professional settings. • Evaluate the effectiveness of real AAT programs using criteria such as outcomes, feedback and ethical standards.
Key Vocabulary: anthropomorphism, animal rights philosophy, animal welfare philosophy, domestication, animal-assisted interventions, animal-assisted therapy, biophilia, companion animals, human-animal bond, human-animal interactions	
Assessment Evidence	
Performance Tasks: *Classwork:* Students will create a visual representation of how animals influence human well-being. **TCC3** *Classwork:* Students will identify one key moment in AAT history and explain its impact. **CCE3** *Classwork:* Students will read and summarize a short research article or infographic on AAT benefits. **TCC2** *Interim:* Conduct and summarize a peer interview about their experiences with animals. **CCE1** *Summative:* Students will research and present on a real-world AAT program (e.g, prison dog training, hospital therapy dogs). **TCC3**	**Other Evidence:** *Classwork:* Students will describe a personal or observed experience that demonstrates the human-animal bond in a reflection journal entry. *Classwork:* Students will reflect on which AAT application resonated most and why. *Interim:* Students will complete a written assessment on the terminology and roles of animal-assisted therapy categories.
Learning Plan	
• Review the historic progression of the human-animal bond throughout history. **TCC3** • Differentiate between animal-assisted therapy (AAT), animal-assisted activities (AAA), service animals, and emotional support animals. • Research current animal-assisted therapy programs and their functions in society. **TCC3**	
Teacher Resources: Handbook on Animal-Assisted Therapy, Fifth Edition	

Unit 2 - THERAPY IN ACTION: ROLES, SETTINGS AND IMPACT

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

National Agriculture, Food, and Natural Resources

AS.01.01 Evaluate the development and implications of animal origin, domestication, and distribution on production practices and the environment.

AS.01.03 Analyze laws and sustainable practices that impact animal agriculture from a local, tribal, state, national, and global perspective.

AS.02.01 Explain management techniques that ensure animal welfare.

AS.05.01 Design and evaluate animal housing, equipment, and handling facilities for the major systems of animal production.

AS.05.02 Comply with government regulations and safety standards for facilities used in animal production.

AS.06.02 Apply principles of comparative anatomy and physiology to use within various animal systems.

Common Core State Standards

RI.11-12.1 Cite strong and thorough textural evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.

RI.11-12.2 Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis; provide an objective summary of the text.

RI.11-12.3 Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text.

SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

W.11-12.2 Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

W.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

W.11-12.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

W.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format

for citation.

W.11-12.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

National Health Science Standards

2.1.1 Model verbal and nonverbal therapeutic communication.

2.3.2 Prepare examples of technical and informative writing.

3.1.1 Differentiate healthcare delivery systems and healthcare-related agencies.

3.1.3 Analyze the impact of emerging issues on healthcare delivery systems.

6.2.1 Discuss religious, social, and cultural values as they impact healthcare.

Vision of A Learner Attributes: Students will be able to independently use their learning to...

COLLABORATE AND COMMUNICATE EFFECTIVELY

CCE3: I can show initiative in prompting group discourse and fostering collaboration among others, providing actionable feedback, and working with others to solve problems and/or design products.

DEMONSTRATE EMPATHY

DE2: I can honor my own feelings and show empathy toward others through my actions.

TAKE INITIATIVE

TI1: I can implement a realistic plan and adapt when necessary to achieve my goals.

PERSEVERE

P4: I can take on challenges and continuously engage in my own long-term strategies to overcome them to demonstrate through personal experience that failures are more instructive than discouraging.

ADAPT AND ADJUST

AA1: I can evaluate different approaches and justify the best pathway to success.

Understandings: Students will understand that...

- Animal-assisted therapy (AAT) and animal-assisted activities (AAA) both support human well-being but differ in purpose, structure, and outcomes.
- Animal-assisted interventions can be adapted for a wide variety of environments to meet different human needs.
- In healthcare settings, therapy animals can promote healing, reduce stress, and improve patient outcomes.
- Animals can support student learning, social-emotional development, and behavior in education settings.
- AAT is not limited to hospitals and schools; unconventional environments can also benefit from structured animal interaction.
- The success of animal-assisted therapy can be measured through outcomes, feedback, and client progress toward goals.

Essential Questions:

- What are the key differences between animal-assisted therapy and animal-assisted activities?
- Where and how are animal-assisted interventions used to improve human lives?
- How do therapy animals contribute to patient care and recovery in medical settings?
- In what ways do therapy animals impact students and teachers in schools?
- What are some surprising or unconventional environments where animal-assisted therapy is making a difference?
- How do we evaluate whether an animal-assisted therapy program is truly effective?

Students will know...	**Students will be able to...**
• The definitions and distinctions between AAT and AAA. • Examples of settings where AAT and AAA are applied. • Roles of professionals in AAT versus AAA. • Common settings for AAT/AAA (hospitals, schools, prisons, nursing homes, mental health clinics). • Population needs and goals in each of the common settings for AAT/AAA. • Types of healthcare settings that use therapy animals. • Benefits and limitations of AAT in hospitals, rehab centers, and long-term care facilities. • AAT applications for literacy, emotional regulations, and special education. • Challenges and benefits of using therapy animals in schools. • Unique settings in which AAT/AAA is applied (e.g., prisons, corporate offices, disaster relief zones, libraries). • Adaptations required for different environments applying AAT/AAA techniques. • Methods for assessing AAT success (e.g., surveys, observation, behavior change). • Importance of data collection, feedback and program adaptation.	• Compare and contrast AAT and AA using specific criteria. • Identify the appropriate setting for AAT or AA based on client needs. • Match intervention goals to appropriate intervention settings. • Describe how animal-assisted services are tailored to unique populations. • Analyze how AAT supports physical and emotional healing. • Identify considerations and precautions for using animals in health care. • Design a basic plan for incorporating a therapy animal into a school environment. • Evaluate how animals can address specific student needs. • Identify unconventional uses of AAT and explain their impact. • Create a plan for a nontraditional AAT program. • Interpret sample data to draw conclusions about a program's success. • Propose improvements to an existing AAT program based on evidence.

Key Vocabulary:
animal-assisted activities (AAA), animal-assisted interventions (AAI), animal-assisted therapy (AAT), assessment, client, documentation, ethics, evaluation, facility, handler, intervention, outcome, population, professional, program, progress notes, protocol, setting, stakeholder, therapy animal

Assessment Evidence

Performance Tasks:	**Other Evidence:**
Classwork: Students will create a visual guide showing setting, population served, and intervention goals for an AAT/AAA site. **CCE3** *Classwork:* As a group, students will review and give feedback on a real or mock AAT program's evaluation methods.**TI1** *Interim:* Students will create a brochure for a hypothetical hospital for an	*Classwork:* Students will create a T-chart comparison of AAT versus AAA. *Classwork:* Students will evaluate the effectiveness of an AAT program in a hospital setting through the use of case studies. **TI1** *Classwork:* Students will answer the reflection question: "How could a

AAT program launching. **CCE3** *Summative:* Students will plan a mobile AAT unit for a disaster relief scenario. **DE2, P4**	therapy animal have helped you or a peer during school?" *Classwork:* Students will complete a data analysis worksheet that examines sample AAT results and recommend adjustments. **AA1**

Learning Plan

- Students will compare animal-assisted therapy and animal-assisted activities including definitions, goals, personnel involved, and documentation required. **CCE3**
- Students will analyze scenarios to determine if AAT, AAA or service animal is in use.
- Students will research how AAT is used in multiple therapeutic settings. **TI1**
- Students will design a mock therapy session tailored to a specific setting population that includes session goals, animals used, safety measures, and expected outcomes. **DE2, P4**

Teacher Resources:
Handbook on Animal-Assisted Therapy, Fifth Edition
Pet Partners Handler Guide

Unit 3 - PARTNERS IN HEALING: ANIMAL SELECTION, CARE, AND ETHICS

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

National Agriculture, Food, and Natural Resources

AS.01.03 Analyze laws and sustainable practices that impact animal agriculture from a local, tribal, state, national, and global perspective.

AS.06.02 Apply principles of comparative anatomy and physiology to uses within various animal systems.

AS.06.03 Select animals for specific purposes and maximum performance based on anatomy and physiology.

AS.07.01 Design programs to prevent animal diseases, parasites, and other disorders and ensure animal welfare.

Common Core State Standards

RI.11-12.1 Cite strong and thorough textural evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.

RI.11-12.2 Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis; provide an objective summary of the text.

RI.11-12.3 Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text.

RI.11-12.7 Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

W.11-12.2 Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

W.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

W.11-12.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

W.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

W.11-12.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

National Health Science Standards

2.1.1 Model verbal and nonverbal therapeutic communication.
2.3.2 Prepare examples of technical and informative writing.
3.1.1 Differentiate healthcare delivery systems and healthcare-related agencies.
3.1.3 Analyze the impact of emerging issues on healthcare delivery systems.
6.2.1 Discuss religious, social, and cultural values as they impact healthcare.

Vision of A Learner Attributes: Students will be able to independently use their learning to...

THINK CRITICALLY AND CREATIVELY

TCC2: I can evaluate evidence from multiple perspectives, and recognize their limitations and implications, in order to justify new conclusions.

COLLABORATE AND COMMUNICATE EFFECTIVELY

CCE2: I can give and receive actionable and relevant feedback with openness to be able to determine meaningful revisions for success.

CCE3: I can show initiative in prompting group discourse and fostering collaboration among others, providing actionable feedback, and working with others to solve problems and/or design products.

DEMONSTRATE EMPATHY

DE2: I can honor my own feelings and show empathy toward others through my actions.

DE4: I can work respectfully with all members of my community and support the needs of others.

ADAPT AND ADJUST

AA1: I can evaluate different approaches and justify the best pathway to success.

Understandings: Students will understand that...

- The effectiveness and safety of animal-assisted therapy depend on selecting animals with the appropriate temperament, behavior, and training potential.
- Therapy animals must undergo specialized training and evaluation to ensure safe, controlled interactions with people.
- Protecting the physical and emotional well-being of therapy animals is essential to ethical and sustainable animal assisted work.
- Ethical decision-making in AAT ensures safety, dignity, and respect of both clients and animals.
- Handlers are critical to the success of animal-assisted interventions, ensuring safety, communication, and effective delivery of services.
- A safe environment for both animals and clients enhances the

Essential Questions:

- What makes an animal suitable for therapeutic work?
- How are therapy animals trained and certified to work with people?
- How can we ensure therapy animals are treated with respect, care, and compassion?
- What ethical issues arise in animal-assisted therapy, and how can they be addressed?
- What is the handler's role, and how do they support both the animal and the client during AAT?
- How can we design spaces and routines that promote safety and well-being in AAT sessions?

success and sustainability of AAT programs.	
Students will know... ● Common species and breeds used in animal-assisted therapy. ● Characteristics of a good therapy animal (temperament, socialization, health). ● Basic eligibility and evaluation criteria for therapy animals. ● The steps involved in training therapy animals. ● Key skills and behaviors animals must learn. ● Organizations that certify therapy animals and their requirements. ● Signs of stress and burnout in therapy animals. ● The Five Freedoms of animal welfare. ● Best practices for scheduling, rest, and health care. ● Common ethical challenges (e.g., consent, animal stress, handler responsibility). ● Ethical standards and guidelines for practitioners. ● The importance of informed consent and appropriate boundaries. ● Core duties of a handler before, during, and after a session. ● How handlers communicate with both animals and clients. ● The importance of handler training and self-awareness. ● Key elements of a safe therapy environment (space, noise level, exits, animal access). ● How to prevent and respond to incidents (e.g., bits, fear reactions, allergies). ● Safety protocols and emergency procedures in AAT settings.	**Students will be able to...** ● Identify traits of suitable therapy animals. ● Explain why certain animals may or may not be appropriate for AAT. ● Describe the training process for therapy animals. ● Compare the standards of different therapy animal certification organizations. ● Recognize when a therapy animal may be overstressed or unfit to work. ● Create a basic wellness plan for a therapy animal. ● Analyze ethical dilemmas and propose appropriate actions. ● Explain how ethical practices protect both the client and the animal. ● Simulate basic handler responsibilities in mock sessions. ● Identify signs of stress in the animal and client and respond appropriately. ● Assess a mock environment for AAT readiness and safety. ● Develop a basic emergency response plan for AAT incidents.
Key Vocabulary: animal-assisted therapy (AAT), breed suitability, burnout, certification, ethics, evaluation, handler, health screening, informed consent, overstimulation, professional standards, selection criteria, service animal, socialization, stress signals, temperament, therapy animal, welfare, wellness plan, work/rest balance	
Assessment Evidence	
Performance Tasks: *Classwork:* Students will evaluate profiles of various animals to determine their suitability for animal-assisted therapy work. **DE4**	**Other Evidence:** *Classwork:* Students will outline the process from animal selection to certification.

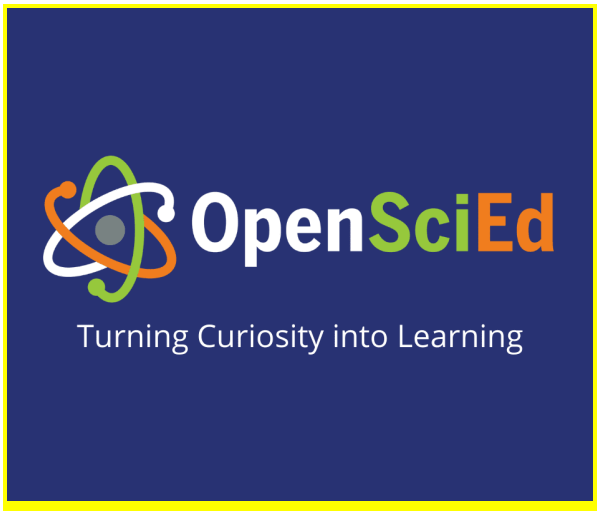
Classwork: Students will create a weekly care and work schedule for a therapy animal. **AA1** *Classwork:* Students will evaluate peers in a handler simulation role. **CCE2** *Classwork:* Students will evaluate a sample floor and recommend improvements. **TCC2** *Interim:* Students will do small group research presentations on major certifying organizations of animal-assisted therapy animals (e.g., Pet Partners, Therapy Dogs International). **CCE3**	*Classwork:* Students will identify welfare concerns and suggest improvements. **DE2** *Classwork:* Students will answer the reflection question: "What responsibility do humans have to therapy animals?" *Interim:* Students will complete a written assessment on characteristics and selection criteria of animal-assisted therapy candidates. *Summative:* Students will complete a cumulative written assessment of course material.

Learning Plan

- Students evaluate animal profiles (species, breed, temperament, behavior) to determine suitability for therapy work.
- Students will research certifying organizations and their requirements to certify animal-assisted therapy animals. **CCE3**
- Students will assess instances where therapy animal welfare is compromised and address concerns and propose solutions. **CCE2**

Teacher Resources:
Pet Partners Handler Guide

7th GRADE SCIENCE CURRICULUM

	
Grade Level(s): 7th Grade	**Curriculum Author(s):** Kari McCarthy and Taryn Fernandez
Course Description: 7th grade science is a combination of physical science, earth and space science, and life science designed to prepare students for continued studies in science via phenomena-based learning. The units are designed utilizing resources from OpenSciEd, a state-endorsed hub for high quality science teaching and learning materials. Through investigation, problematizing, and putting pieces together, students will gain understanding of chemical reactions, human body interactions, photosynthesis and matter cycling, plate tectonics and the rock cycle.	

Year At A Glance			
Unit Title	**Overarching Essential Question**	**Overarching Enduring Understanding**	**Vision of A Learner "I Can" Statements**
Atomic Structure & the Periodic Table	What Makes Up Everything Around Us?	A substance is made of the same type of molecules (or atoms throughout). The number, type, and arrangement of atoms in the molecules that make up a substance are unique to that substance.	TCC2 (6-8) CCE3 (6-8) TI2 (6-8) P4 (6-8)
Chemical Reactions and Matter	How can we make something new that was not there before?	In a chemical reaction, the particles that make up old substances can be broken apart and the atoms that make them up can be rearranged to form new molecules to make new substances. We can use properties to help identify different substances.	TCC2 (6-8) CCE3 (6-8) TI3 (6-8) P4 (6-8)
Chemical Reactions and Energy	How can we use chemical reactions to design a solution to a problem?	Energy transfers from the system of atoms that rearrange during the chemical reaction to surrounding systems. The more reactants we use in a chemical reaction, the more energy is being transferred into or out of the system. The evidence of this is a greater temperature change. Engineers use a cyclical process (Define, Develop, Optimize) to design solutions. Designs and instructions need to be peer tested to inform modifications that will lead to a better solution.	TCC1 (6-8) CCE2 (6-8) DE4 (6-8) TI1 (6-8) P2 (6-8)

Metabolic Reactions	How do things inside our bodies work together to make us feel the way we do?	In a healthy digestive system, multiple subsystems, or organs, work together to help the body break large food molecules down into smaller food molecules. A chemical reaction happens in the cells of the body to provide them with energy. The reaction helps us explain why certain materials that we take into our bodies, like oxygen and food, are different from the materials that leave our bodies, like carbon dioxide and water. If our activity level increases, the chemical reaction happens faster to meet cells' needs.	TCC3 (6-8) CCE4 (6-8) DE2 (6-8) AA4 (6-8)
Matter Cycling and Photosynthesis	Where does food come from, and where does it go next?	The outputs of living things become the inputs of other living things and part of the nonliving components of the system. Systems consist of living (producers, consumers, and decomposers) and nonliving (air and water) components where atoms are continuously recycled between these components.	TCC4 (6-8) CCE3 (6-8) DE1 (6-8) P1 (6-8)
Plate Tectonics and Rock Cycling	What causes Earth's surface to change?	Movement in the mantle with movement of plates at Earth's surface and determine causal and correlational relationships between plate movement, earthquakes, volcanoes, erosion, and magma movement along with their related energy sources.	TCC2 (6-8) CCE1 (6-8) TI2 (6-8) AA1 (6-8)

Unit 1 - Atomic Structure and the Periodic Table

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

This unit is designed to build foundational understanding of atomic structure and how it connects to the periodic table, supporting the following NGSS performance expectations:

- **MS-PS1-1:** Develop models to describe the atomic composition of simple molecules and extended structures.
- **MS-PS1-2:** Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.
- **MS-PS1-3:** Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)

- **TCC2 (6-8):** Evaluate data gathered from multiple perspectives and draw conclusions.
- **CCE3 (6-8):** Participate in collaborative conversations by actively listening, formulating questions, making connected comments, and providing feedback.
- **TI2 (6-8):** Identify lesson objectives and apply the best resources to support learning.
- **P4 (6-8):** Step outside their comfort zone because they recognize that mistakes are opportunities to learn and grow.

Understandings: Students will understand that...

- All matter is made up of atoms, which are composed of protons, neutrons, and electrons.
- The periodic table is a tool that organizes elements based on patterns in atomic structure and properties.
- Patterns in atomic structure help predict how elements will behave in chemical reactions.

Essential Questions:

1. What are atoms made of and how do they differ from each other?
2. How does the periodic table help us understand the properties of elements?
3. Why do certain elements react with others?

Students will know...	**Students will be able to...**
● The basic structure of an atom (nucleus, protons, neutrons, electrons). ● Elements are organized on the periodic table by atomic number and similar properties. ● Group and period trends help predict element behavior.	● Develop models of atoms including subatomic particles. ● Use the periodic table to identify and compare elements. ● Analyze patterns in atomic structure to make predictions about reactivity. ● Communicate how atomic structure relates to the properties of elements.

Key Vocabulary: Atom, proton, neutron, electron, nucleus, element, atomic number, atomic mass, periodic table, group/family, period, reactivity, valence electron, isotope, molecule, compound, model, matter

Assessment Evidence

Performance Tasks:	**Other Evidence:**
● Atomic Model Construction Task ● Periodic Table Exploration Project	● Practice using the periodic table to determine atomic properties. ● Quizzes on subatomic particles and element identification. ● Modeling of atoms and elements using manipulatives. ● CER responses to reactivity comparisons

Learning Plan

COLLABORATE AND COMMUNICATE EFFECTIVELY

- **CCE3 (6-8):** I can participate in collaborative conversations by actively listening, formulating questions, making connected comments and providing various types of feedback to my peers.
    - *Atomic Model Construction Task*

TAKE INITIATIVE

- **TI2 (6-8)**: I can identify my objectives and apply the best resources to my learning
    - *Periodic Table Exploration Project*

PERSEVERE

- **P4 (6-8):** I can step outside my comfort zone because I recognize that my mistakes are not failures, but rather an opportunity to learn and grow.
    - *CER responses to reactivity comparisons*

Teacher Resources: Teacher developed lessons, Generation Genius, Gizmos, IXL

Unit 2 - Chemical Reactions and Matter

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

PS1.A: Structure and Properties of Matter

- Substances are made from different types of atoms, which combine with one another in various ways.
- Atoms form molecules that range in size from two to thousands of atoms.
- Solids may be formed from molecules, or they may be extended structures with repeating subunits (e.g., crystals).
- Each pure substance has characteristic physical and chemical properties (for any bulk quantity under given conditions) that can be used to identify it.

PS1.B: Chemical Reactions

- Substances react chemically in characteristic ways. In a chemical process, the atoms that make up the original substances are regrouped into different molecules, and these new substances have different properties from those of the reactants.
- The total number of each type of atom is conserved, and thus the mass does not change.

LS1-D: Information Processing

- Each sense receptor responds to different inputs (electromagnetic, mechanical, chemical), transmitting them as signals that travel along nerve cells to the brain. The signals are then processed in the brain, resulting in immediate behaviors or memories.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

- **TCC2 (6-8):** Evaluate data gathered from multiple perspectives and draw conclusions.
- **CCE3 (6-8):** Participate in collaborative conversations by actively listening, formulating questions, making connected comments, and providing feedback
- **TI3 (6-8):** Compose specific questions that are relevant to a task to support learning.
- **P4 (6-8):** Step outside their comfort zone because they recognize that mistakes are opportunities to learn and grow.

Understandings: Students will understand that… ● In a closed system, no matter can get in or out, so the mass stays the same even when changes happen to the matter (such as becoming a gas). ● In an open system, matter can get in or out, so the mass can change if that happens. ● Properties don't change for a substance like flammability, melting/boiling point, and density. ● During a chemical reaction, new substances are produced from the old substances. Some of the particles that make up the original substances break apart and/or join to make new types of particles.	**Essential Questions:** ● Which combinations of the substances in a bath bomb produce a gas? ● What gas(es) could be coming from the bath bomb? ● How can particles of a new substance be formed out of the particles of an old substance? ● When energy from a battery was added to water, were the gases produced made of the same particles as were produced from heating the water? ● How can a new substance (a gas) be produced and the total mass of the closed system not change?
Students will know... ● Which substance(s) could or could not be produced in the process of substances being mixed together ● What tests could be done on gases to help identify substances ● Molecules are made of atoms and all the substances in our world are made of very few types of atoms. ● In a chemical reaction, the particles that make up old substances can be broken apart and the atoms that make them up can be rearranged to form new molecules to make new substances.	**Students will be able to...** ● Develop and revise models representing chemical reactions at the particle level. ● Plan and conduct investigations to gather and interpret data. ● Construct scientific explanations using evidence. ● Identify whether a chemical reaction has occurred based on properties and mass data.
Key Vocabulary: Claim, evidence, reasoning, atom,element, molecule, substance,compound, mixture, chemical reaction, physical change, property, density, flammability, solubility, conductivity, melting/boiling point, state of matter, reactant, product, mass conservation, particle model	

Assessment Evidence	
Performance Tasks: ● Explaining Another Phenomenon ● Constructing a Revised Explanation	**Other Evidence:** ● Chemical Reactions and Matter: End of Unit Summative Assessment ● Testing Combinations of Substances ● Chemical and Physical Changes STEM Case (Gizmos)

Learning Plan

THINK CRITICALLY AND CREATIVELY

- **TCC2 (6-8)** I can evaluate data gathered from multiple perspectives and draw conclusions.
  - *Explaining Another Phenomenon*

COLLABORATE AND COMMUNICATE EFFECTIVELY

- **CCE3 (6-8):** I can participate in collaborative conversations by actively listening, formulating questions, making connected comments and providing various types of feedback to my peers.
  - *Constructing a Revised Explanation*

PERSEVERE

- **P4 (6-8):** I can step outside my comfort zone because I recognize that my mistakes are not failures, but rather an opportunity to learn and grow.
  - *Testing Combinations of Substances*
  - *Chemical and Physical Changes STEM Case*

Teacher Resources: OpenSciEd Resources - Unit 7.1, Gizmos from Explore Learning, IXL

Unit 3 - Chemical Reactions and Energy

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

PS1.B: Chemical Reactions

- Substances react chemically in characteristic ways. In a chemical process, the atoms that make up the original substances are regrouped into different molecules, and these new substances have different properties from those of the reactants.
- The total number of each type of atom is conserved, and thus the mass does not change.
- Some chemical reactions release energy, others store energy

PS3.A: Definitions of Energy

- The term “heat” as used in everyday language refers both to thermal energy (the motion of atoms or molecules within a substance) and the transfer of that thermal energy from one object to another. In science, heat is used only for this second meaning; it refers to the energy transferred due to the temperature difference between two objects.
- The temperature of a system is proportional to the average internal kinetic energy and potential energy per atom or molecule (whichever is the appropriate building block for the system’s material). The details of that relationship depend on the type of atom or molecule and the interactions among the atoms in the material.

ETS1.B. Developing Possible Solution

- A solution needs to be tested, and then modified on the basis of the test results, in order to improve it.
- There are systematic processes for evaluating solutions with respect to how well they meet the criteria and constraints of a problem.
- Sometimes parts of different solutions can be combined to create a solution that is better than any of its predecessors.
- Models of all kinds are important for testing solutions.

ETS1.C. Optimizing the Design Solution

- Although one design may not perform the best across all tests, identifying the characteristics of the design that performed the best in each test can provide useful information for the redesign process - that is, some of the characteristics may be incorporated into the new design.
- The iterative process of testing the most promising solutions and modifying what is proposed on the basis of the test results leads to greater refinement and ultimately to an optimal solution.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)

- **TCC1 (6-8):** Ask relevant questions to evaluate possible solutions.
- **CCE2 (6-8):** Use feedback to revise work and increase learning.
- **DE4 (6-8)**: Be respectful and responsible and build positive relationships with all members of the school community.
- **TI1 (6-8):** Create a plan with manageable steps to reach goals.
- **P2 (6-8):** Monitor their learning through strategies and self-assessment for growth.

Understandings: Students will understand that...

- Energy transfers from the system of atoms that rearrange during the chemical reaction to surrounding systems
- Chemical reactions can absorb or release thermal energy (endothermic and exothermic reactions).
- The more reactants we use in a chemical reaction, the more energy is being transferred into or out of the system. The evidence of this is a greater temperature change.
- Engineers use a cyclical process (Define, Develop, Optimize) to design solutions.
- Design performance needs to be optimized by revising and retesting.
- Designs and instructions need to be peer tested to inform modifications that will lead to a better solution.

Essential Questions:

- How can we heat up food when we don't have our typical methods available?
- What other chemical reactions could we use to heat up food?
- How much of each reactant should we include in our homemade flameless heater?
- How can we use evidence of energy change to improve a design?
- What makes a design successful and how do we make it better?

Students will know…

- Temperature changes can indicate energy changes in chemical reactions.
- Endothermic reactions absorb heat; exothermic reactions release heat.

Students will be able to…

- Analyze data to determine energy changes in chemical reactions.
- Design, test, and revise a thermal energy device.

• Energy can be transferred into or out of a system.	• Collaboratively use criteria and constraints to improve a design. • Construct models to show energy transfer in chemical reactions.
Key Vocabulary: Thermal energy, endothermic, exothermic, temperature, chemical reaction, system, surroundings, energy transfer, criteria, constraints, design solution.	
Assessment Evidence	
Performance Tasks: • Design Challenge • Thermal Energy Explanation	**Other Evidence:** • Teamwork Self-Assessment • Peer Feedback on Designs • Feel the Heat Gizmo • Analyzing and Presenting Information (CER)
Learning Plan	

COLLABORATE AND COMMUNICATE EFFECTIVELY
• **CCE2 (6-8):** I can use rubrics, peer editing, conferences, and other feedback to revise my work and increase my learning
  ○ *Design Challenge and Thermal Energy Explanation*
 	
DEMONSTRATE EMPATHY
• **DE4 (6-8):** I can be respectful and responsible and build positive relationships with all members of the school community.
  ○ *Discussions and participation during presentation of guest speaker*
 	
PERSEVERE
• **P2 (6-8):** I can identify my relative strengths as well as areas for improvement. I can set goals, use strategies for improvement, and monitor my own learning through various means of self-assessment in order to experience growth.
  ○ *Teamwork Self-Assessment and Peer Feedback on Designs*	

Teacher Resources: OpenSciEd Resources - Unit 7.2, Gizmos from Explore Learning, IXL	

Unit 4 - Metabolic Reactions (A Medical Mystery)

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

LS1.A Structure and Function

- In multicellular organisms, the body is a system of multiple interacting subsystems. These subsystems are groups of cells that work together to form tissues and organs that are specialized for particular body functions.

LS1.B Growth and Development of Organisms

- The growth of an animal is controlled by genetic factors,* food intake, and interactions with other organisms, and each species has a typical adult size range.

LS1.C Organization for Matter and Energy Flow in Organisms

- Within individual organisms, food moves through a series of chemical reactions in which it is broken down and rearranged to form new molecules, to support growth, or to release energy.

PS3.D Energy in Processes and Everyday Life

- Cellular respiration in plants and animals involves chemical reactions with oxygen that release stored energy. In these processes, complex molecules containing carbon react with oxygen to produce carbon dioxide and other materials.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

- **TCC3 (6-8)**: Combine new information with their own ideas to generate solutions.
- **CCE4 (6-8):** Express ideas in a variety of ways, according to context, purpose, and audience.
- **DE2 (6-8):** Recognize feelings in themselves and others and respond with respect and empathy.
- **AA4 (6-8):** Seek opportunities to learn more and continue to push their thinking.

Understandings: Students will understand that… • In biology, there is a fundamental relationship between structure and function. • The human body is organized into different levels — cells, tissues, organs, and systems — and how these levels work together to perform functions like digestion and cellular respiration. • These levels work together to move molecules like oxygen and glucose to cells, where chemical reactions release energy. • Cells are the basic unit where energy is released from food.	**Essential Questions:** • How do things inside our bodies work together to make us feel the way we do? • How does food give us energy and help our bodies grow? • What happens to food after we eat it? • How do different parts of our body work together to use food as fuel?
Students will know… • Cells in the body carry out chemical reactions that break down food molecules. • These reactions produce energy or form new molecules for growth and repair. • Organs and subsystems in the body interact to digest and distribute nutrient • A chemical reaction happens in the cells of the body to provide them with energy. The reaction helps us explain why certain materials that we take into our bodies, like oxygen and food, are different from the materials that leave our bodies, like carbon dioxide and water.	**Students will be able to...** • Use arguments supported by evidence for how the body is a system of interacting subsystems composed of groups of cells. • Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms. • Develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism. • Develop models to describe the atomic composition of simple molecules and extended structures. • Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.

Key Vocabulary: Metabolism, metabolic reaction, digestion, chemical reaction, food molecule, nutrients, macronutrient, energy, glucose, oxygen, carbon dioxide, circulatory system, digestive system, cellular respiration, cell membrane, nucleus, mitochondria, system interaction, matter cycling, energy flow.

Assessment Evidence

Performance Tasks:
- Argue From Evidence What's Causing M'Kenna's Symptoms
- Brown Bear Hibernation Task

Other Evidence:
- Eliminate Possible Conditions and Identify Missing Evidence
- Digestive System Gizmos

Learning Plan

THINK CRITICALLY AND CREATIVELY
- **TCC2 (6-8**) I can evaluate data gathered from multiple perspectives and draw conclusions.
  - *Brown Bear Hibernation Task*

COLLABORATE AND COMMUNICATE EFFECTIVELY
- **CCE4 (6-8):** I can express my thoughts and ideas, both verbally and in writing, in order to defend my perspective. I can do this via essays, performance-based projects, whole group, and/or small group discussions
  - *Argue From Evidence What's Causing M'Kenna's Symptoms*

DEMONSTRATE EMPATHY
- **DE2 (6-8)** I can recognize feelings in myself and others and respond with respect and empathy.
  - *Eliminate Possible Conditions and Identify Missing Evidence*
  - *Classroom discussions around anchoring phenomena*

Teacher Resources: OpenSciEd Resources - Unit 7.3, BSCS Science Learning - A Medical Mystery, Teacher- developed Google Site, IXL

Unit 5 - Matter Cycling and Photosynthesis

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

LS1.C: Organization for Matter and Energy Flow in Organisms

- Plants, algae (including phytoplankton), and many microorganisms use the energy from light to make sugars (food) from carbon dioxide from the atmosphere and water through the process of photosynthesis, which also releases oxygen. These sugars can be used immediately or stored for growth or later use.

LS2.B: Cycle of Matter and Energy Transfer in Ecosystems

- Food webs are models that demonstrate how matter and energy is transferred between producers, consumers, and decomposers as the three groups interact within an ecosystem.
- Transfers of matter into and out of the physical environment occur at every level. Decomposers recycle nutrients from dead plant or animal matter back to the soil in terrestrial environments or to the water in aquatic environments.
- The atoms that make up the organisms in an ecosystem are cycled repeatedly between the living and nonliving parts of the ecosystem.

PS1.A: Structure and Properties of Matter

- Each pure substance has characteristic physical and chemical properties (for any bulk quantity under given conditions) that can be used to identify it.

PS1.B: Chemical Reactions

- Substances react chemically in characteristic ways. In a chemical process, the atoms that make up the original substances are regrouped into different molecules, and these new substances have different properties from those of the reactants.

PS3.D: Energy in Chemical Processes and Everyday Life

- The chemical reaction by which plants produce complex food molecules (sugars) requires an energy input (i.e., from sunlight) to occur. In this reaction, carbon dioxide and water combine to form carbon-based organic molecules and release oxygen. (secondary)

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

- **TCC4 (6-8)**: Apply learning to new experiences, determine if it works, and adjust in the future.

- **CCE3 (6-8)**: Participate in collaborative conversations by actively listening, formulating questions, making connected comments, and providing feedback.
- **DE1 (6-8):** Search for and compare multiple perspectives.
- **AA2 (6-8):** Identify past successful strategies and apply them independently.
- **P1 (6-8):** Identify personal strengths and challenges and develop strategies to overcome obstacles.

Understandings: Students will understand that...

- Plants make their own food through photosynthesis by using sunlight, carbon dioxide, and water.
- Matter cycles and energy flows within ecosystems, starting with producers like plants.
- Growth in plants is due to the rearrangement of matter through chemical processes.
- If plants make sugar (through photosynthesis) faster than their cells use it for energy (through cellular respiration), they store up that extra food by converting it to starches (or fats). These can be used later for fuel or building blocks.
- Systems consist of living (producers, consumers, and decomposers) and nonliving (air and water) components where atoms are continuously recycled between these components.

Essential Questions:

- How do plants grow without eating food?
- How do matter and energy move through living systems?
- Where is the food (molecules) in plants coming from?
- Why do plants need light?
- Why don't plants die when they can't make food?
- What happens to food that doesn't get eaten?

Students will know …

- Photosynthesis converts light energy into stored chemical energy.
- Plants use photosynthesis to create the molecules that begin energy transfer in food chains.
- During the process of photosynthesis, energy is transferred from the sunlight to the plant. All plants make their own food molecules through the process of photosynthesis.

Students will be able to…

- Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.
- Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.
- Gather and make sense of information to describe that synthetic

Photosynthesis occurs in the chloroplasts of plant cells. • Carbon, hydrogen, and oxygen atoms are rearranged to form glucose in plants. • Matter cycles between the air and living things. • Resource availability affects ecosystem populations.	materials come from natural resources and impact society. • Develop and use a model to describe the function of a cell as a whole and ways the parts of cells contribute to the function. (Specifically, chloroplasts and mitochondria.)
Key Vocabulary: Photosynthesis, matter, energy, glucose, carbon dioxide, water, sunlight, oxygen, food molecules, macronutrients, producers, consumers, decomposers, ecosystem, food chain, chemical reaction, cell wall, chloroplast, mitochondria, structure, function, carbon cycle, resource availability.	
Assessment Evidence	
Performance Tasks: • Matter Cycling: Mid-Unit Performance Task • Whale Fall Task	**Other Evidence:** • Comparing and Critiquing Arguments About Water In Plants • Ecosystems STEM Case on Gizmos • Discussions and Participation in field trip
Learning Plan	
COLLABORATE AND COMMUNICATE EFFECTIVELY • **CCE3 (6-8)**: I can participate in collaborative conversations by actively listening, formulating questions, making connected comments and providing various types of feedback to my peers. ○ *Matter Cycling: Mid-Unit Performance Task* ○ *Whale Fall Task* **ADAPT AND ADJUST** • **AA2 (6-8):** I can identify past successful strategies and apply them independently. ○ *Ecosystems STEM Case on Gizmos*	
Teacher Resources: OpenSciEd Resources - Unit 7.4, Gizmos from Explore Learning, IXL	

Unit 6 - Plate Tectonics and Rock Cycling

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

ESS1.C. The History of Planet Earth

- The geologic time scale interpreted from rock strata provides a way to organize Earth's history . Analyses of rock strata and the fossil record provide only relative dates, not an absolute scale.
- Tectonic processes continually generate new ocean sea floor at ridges and destroy old seafloor at trenches.

ESS2.A. Earth's Materials and Systems

- The planet's systems interact over scales that range from microscopic to global in size, and they operate over fractions of a second to billions of years. These interactions have shaped Earth's history and will determine its future.

ESS2.B. Plate Tectonics and Large-Scale System Interactions

- Maps of ancient land and water patterns, based on investigations of rocks and fossils, make clear how Earth's plates have moved great distances, collided, and spread apart. (

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)

- **TCC2 (6-8):** Evaluate data gathered from multiple perspectives and draw conclusions.
- **CCE1 (6-8):** Contribute to discussions with peers and teachers, respecting differing viewpoints and responding thoughtfully.
- **TI2 (6-8):** Identify objectives and apply the best resources to their learning.
- **AA1 (6-8):** Implement different pathways to success and recognize the pros and cons of each.

Understandings: Students will understand that...	**Essential Questions:**
• Earth's surface is shaped by both constructive (uplift, volcanoes) and destructive (weathering, erosion) geological processes. • Plate tectonics is the unifying theory that explains the movement of Earth's plates and associated phenomena like earthquakes, mountain formation, and seafloor spreading. • Rock cycling and Earth's internal energy contribute to the continual reshaping of Earth's surface. • Earth processes like earthquakes and volcanoes are correlated, however, both earthquakes and volcanoes are primarily caused by the movement and interaction of tectonic plates.	• What causes mountains to grow, shrink, or stay the same? • How do plate tectonics explain patterns in landforms and geologic activity? • How does Earth's surface change over time and space?
Students will know…	**Students will be able to…**
• Plate boundaries are sites of major geological activity. • Geological processes operate over various time and spatial scales. • Rocks are cycled through Earth's systems by energy flows and geologic activity. • The distribution of fossils and rocks provides evidence of plate motion. • Regions of different continents that share similar fossils and similar rocks suggest that, in the geologic past, those sections of the continent were once attached and have since separated. • Surface features will continue to change in the future as geoscience processes continue to occur.	• Develop models that show the cycling of Earth's materials and the flow of energy. • Analyze geologic and fossil data to infer past plate movements. • Construct explanations for how Earth's surface is shaped by internal and external processes. • Apply data to explain elevation changes in mountain ranges.

Key Vocabulary: magnitude, earthquake, earthquake depth, epicenter, causation, correlation, magma, lava, ore deposits, sediment, bedrock, sedimentary rock, metamorphic rock, igneous rock, crust, mantle, plate, oceanic, continental, destructive, constructive

Assessment Evidence

Performance Tasks:

- Mountain Elevation Model Task
- End of Unit - Performance Task Choice Board

Other Evidence:

- Student-created diagrams of tectonic plate boundaries.
- Seismic and volcanic activity data analysis tasks.
- Analyzing and Interpreting Earthquake and Volcano Data (Correlation vs. Causation)

Learning Plan

THINK CRITICALLY AND CREATIVELY

- **TCC2 (6-8):** I can evaluate data gathered from multiple perspectives and draw conclusions.
    - *Analyzing and Interpreting Earthquake and Volcano Data (Correlation vs. Causation)*

TAKE INITIATIVE

- **TI2 (6-8):** I can identify my objectives and apply the best resources to my learning.
    - *End of Unit - Performance Task Choice Board*

ADAPT AND ADJUST

- **AA1 (6-8):** I can implement different pathways to success and recognize the pros and cons of each.
    - *Mountain Elevation Model Task*

Teacher Resources: OpenSciED Resources -Unit 6.4, IXL