

Course Title	<b>Advanced Foods and Nutrition</b>	Grade Levels	10-12	Credit Value	.5-1.0
Description	This course is a continuation of Food and Nutrition designed to assist students in principles related to food preparation. Content includes Careers in Dietetics and Hospitality; Safety and Sanitation; Food and Menu Planning; Cooking Methods and Baking Applications; and local, regional and global cuisines. Lab instruction emphasizes the application process. Leadership development will be provided through the Family, Career and Community Leaders of America (FCCLA) student organization. Prior enrollment in foods and nutrition is recommended.				
Prerequisites	Foods and Nutrition				
Unit Title	<b><u>Careers in Nutrition and Food Services</u></b>				

### **Technical Content**

1. Students will research careers in nutrition/food services according to skill required and type of job.
2. Students will assess employment opportunities and preparation requirements.
3. Students will demonstrate employability and social skills relevant to the career cluster.
4. Students will utilize activities of the Family, Career and Community Leaders of America student organization as an integral component of course content and leadership development.
30. Students will demonstrate written, verbal and non-verbal communication skills.
31. Students will apply math, science and communication skills within technical content.

### **AAFCS Pre-PAC Competencies**

AAFCSNutritionFoodWellness Careers 6A. Analyze jobs and preparation requirements for careers in nutrition and food occupations.

AAFCSNutritionFoodWellness Careers 6B. Analyze personal qualifications, interests, values, and educational preparation necessary for employment in a career in nutrition and food.

AAFCSNutritionFoodWellness Careers 6C. Evaluate job market opportunities locally, regionally and nationally.

AAFCSNutritionFoodWellness Careers 6D. Compare personal goals to career opportunities within food areas.

### **National Standards**

9.1.1 - Explain the roles and functions of individuals engaged in food science, food technology, dietetics, and nutrition careers.

9.1.2 - Analyze opportunities for employment and entrepreneurial endeavors.

9.1.3 - Summarize education and training requirements and opportunities for career paths in food science, food technology, dietetics, and nutrition.

### **KY Core Academic Standards (Big Idea)**

#### **Career Awareness, Exploration, Planning - Vocational Studies**

Career awareness, exploration and planning gives students the opportunity to discover the various career areas that exist and introduce them to the realities involved with the workplace. Many factors need to be considered when selecting a career path and preparing for employment. Career awareness, exploration and planning will enable students to recognize the value of education, learn how to plan for careers and integrate academic subjects.

#### **Communication/Technology - Vocational Studies**

Special communication and technology skills are needed for success in schooling and in the workplace. Students will be able to express information and ideas using a variety of technologies in various ways.

#### **Employability Skills - Vocational Studies**

Employability skills will focus on student's competencies with their work habits and academic/technical skills that will impact an individual's success in school and workplace. School-to-work transition skills will help students develop interpersonal skills and positive work habits.

### **English/Language Arts Common Core Standards**

CC.11-12.L.2 Conventions of Standard English: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

CC.11-12.R.I.7 Integration of Knowledge and Ideas: 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.

### **Technical Literacy Standards**

Reading / 9-10 / #10 – By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.

Writing / 9-10 / #4 – Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose and audience. Writing / 9-10 / #7 – Conduct short as well as more sustained research projects to answer a 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.

Writing / 9-10 / #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 specific 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 standard format for citation.

Writing / 9-10 / #10 – Write routinely over extended time frames and shorter time frames for a range of discipline-specific tasks, purposes, and audiences.

## **Mathematics Common Core Standards**

CC.9-12.F.IF.7 Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.\*

CC.9-12.S.ID.1 Represent data with plots on the real number line (dot plots, histograms, and box plots).\*

## **21st Century Skills and Knowledge**

Life and Career Skills

Leadership and Responsibility

Information Literacy

## **Learning Targets**

Students will research careers in nutrition and food service according, outlining skill requirements.

Students will assess employment opportunities and preparation requirements.

Students will demonstrate employability and social skills relevant to the career cluster.

Students will utilize FCCLA activities as an integral component of course content and leadership development.

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Prerequisites	Foods and Nutrition				
Unit Title	<u><b>Safety and Sanitation</b></u>				

### **Technical Content**

5. Students will demonstrate proper safety, sanitation and storage techniques in handling food from purchase, preparation, cooking, cooling, to reheating.
6. Students will demonstrate safe, sanitary work habits required by the field.
7. Students will demonstrate and practice knowledge of food service safety and sanitation procedures and the factors that contribute to food borne illness.
8. Students will practice proper waste disposal and recycling methods.
9. Students will operate tools and equipment following safety procedures and OSHA requirements.
30. Students will demonstrate written, verbal and non-verbal communication skills.
31. Students will apply math, science and communication skills within technical content.

### **AAFCS Pre-PAC Competencies**

- AAFCSNutritionFoodWellness FoodHandling 2C. Demonstrate ability to select, store, prepare, and serve nutritious, safe and appealing foods.
- AAFCSNutritionFoodWellness FoodSafety 3A. Assess conditions and practices that promote safe food handling and methods for preventing a food borne illness outbreak for commercial and home practice.
- AAFCSNutritionFoodWellness FoodSafety 3B. Analyze safety and sanitation practices in retail, institutions and home (including the use of equipment).
- AAFCSNutritionFoodWellness FoodSafety 3C. Analyze the causes and foods at risk for food borne illnesses.
- AAFCSFoodScience FoodProtection 2A. Analyze factors that contribute to food borne illnesses.
- AAFCSFoodScience FoodProtection 2B. Analyze food safety and sanitation programs, including Hazard Analysis Critical Control Point (HACCP).
- AAFCSFoodScience FoodProtection 2C. Evaluate industry standards for documenting and investigating food borne illnesses.
- AAFCSFoodScience FoodTechnology 6A. Describe the functions/operations and maintenance of test laboratory and related equipment and supplies.

### **National Standards**

- 9.5.4 - Maintain test kitchen/ laboratory and related equipment and supplies.
- 9.6.3 - Apply standards for food quality.
- 9.2.5 - Demonstrate practices and procedures that assure personal and workplace health and hygiene.
- 9.2.8 - Use Occupational Safety and Health Administration's (OSHA) Right to Know Law and Material Safety Data Sheets (MSDS) and explain their requirements in handling hazardous materials.
- 9.2.1 - Analyze factors that contribute to food borne illness.
- 9.2.9 - Demonstrate waste disposal and recycling methods.
- 8.2.1 - Identify characteristics of major food borne pathogens, their role in causing illness, foods involved in outbreaks, and methods of prevention.

### **KY Core Academic Standards (Big Idea)**

#### **Safety (Health Education) - Practical Living**

Accidents are a major cause of injury and death to children and adolescents. Unintentional injuries involving a motor vehicle, falls, drowning, fires, firearms and poisons can occur at home, school and work. Safe behavior protects a person from danger and lessens the effects of harmful situations.

### **English/Language Arts Common Core Standards**

- CC.11-12.L.1 Conventions of Standard English: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- CC.11-12.L.2 Conventions of Standard English: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- CC.11-12.L.4 Vocabulary Acquisition and Use: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 11–12 reading and content, choosing flexibly from a range of strategies.

## **Technical Literacy Standards**

Reading / 9-10 / #1 – Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.

Reading / 9-10 / #3 – Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; attending to special cases or exceptions defined in the text.

Reading / 9-10 / #4 – Determine the meaning of symbols, key terms, and other domain-specific words/phrases as they are used in specific scientific and technical context.

Reading / 9-10 / #5 – Analyze the structure of the relationships among concepts in a text, including relationships among key terms.

Reading / 9-10 / #10 – By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.

Writing / 9-10 / #1 – Write arguments focused on discipline-specific content.

Writing / 9-10 / #4 – Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose and audience.

Writing / 9-10 / #7 – Conduct short as well as more sustained research projects to answer a 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.

Writing / 9-10 / #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 specific 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 standard format for citation.

Writing / 9-10 / #9 – Draw evidence from informational texts to support analysis, reflection, and research.

Writing / 9-10 / #10 – Write routinely over extended time frames and shorter time frames for a range of discipline-specific tasks, purposes, and audiences.

## **Mathematics Common Core Standards**

CC.9-12.N.Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.\*

CC.9-12.S.IC.6 Evaluate reports based on data.\*

## **21st Century Skills and Knowledge**

Critical Thinking and Problem Solving

Environmental Literacy

Health Literacy

## **Learning Targets**

Students will manage a safe, effective and productive lab while utilizing team work skills

Students will demonstrate proper safety, sanitation and storage techniques in handling food from purchase, preparation, cooking, cooling, to reheating.

Students will operate tools and equipment following safety procedures and OSHA requirements

Students will demonstrate safe, sanitary work habits required by the field.

Students will identify factors that contribute to foodborne illness.

Students will demonstrate and practice knowledge of food service safety and sanitation prevention procedures.

Students will practice proper waste disposal and recycling methods.

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Prerequisites	Foods and Nutrition				
Unit Title	<u><b>Food and Menu Planning</b></u>				

### **Technical Content**

10. Students will managing a safe, effective and productive lab while utilizing teamwork.
11. Students will apply menu-planning principles to develop and modify menus.
12. Students will apply principles of food preparation to produce a variety of food products and beverages.
13. Students will develop a plan for weight loss, weight gain or maintenance while examining nutrition through the lifecycle (infant, children, teens, pregnancy, adulthood, and old age).
14. Students will plan and examine a diet plan for a specific need (high fiber, low fat, low cholesterol or low sodium, diabetic, athlete, heart disease, lactose intolerance, etc.).
15. Students will illustrate table settings for special occasion.
16. Students will practice using different styles of meal service
17. Students will use nutritional information in preparing and serving food to guests
25. Students willapply time management skills.
26. Students will apply principles of purchasing, cost per serving, and receiving in food service operations.
30. Students will demonstrate written, verbal and non-verbal communication skills.
31. Students will apply math, science and communication skills within technical content.

### **National Standards**

- 9.2.6 - Demonstrate standard procedures for receiving and storage of raw and prepared foods.
- 9.3.1 - Analyze nutrient requirements across the life span addressing the diversity of people, culture, and religions.
- 9.3.7 - Categorize foods into exchange groups and plan menus, applying the exchange system to meet various nutrient needs.
- 9.4.1 - Analyze nutritional needs of individuals.
- 9.4.2 - Use nutritional information to support care planning.
- 9.4.3 - Utilize a selective menu.
- 9.4.4 - Construct a modified diet based on nutritional needs and health conditions.
- 9.5.5 - Implement procedures that affect quality product performance.

### **AAFCS Pre-PAC Competencies**

- AAFCSNutritionFoodWellness FoodHandling 2B. Recognize health and nutrition requirements of individuals and families with special needs.
- AAFCSNutritionFoodWellness FoodHandling 2D. Evaluate food and nutrition information, including food labels, in relation to the nutrition content of the food.
- AAFCSFoodScience NutritionalComposition 3F. Apply basic concepts of human nutrition.

### **KY Core Academic Standards (Big Idea)**

#### **Consumer Decisions - Vocational Studies**

Individual and families need to make consumer decisions due to the numerous products/services on the market, multiple advertising techniques, and the need to make responsible financial management decisions. Accessing and assessing consumer information, comparing and evaluating products and services, provides basis for making effective consumer decisions. Consumer decisions influence the use of resources and the impact they have on the community and environment.

#### **Lifetime Physical Wellness (Physical Education) - Practical Living**

Lifetime wellness is health-focused. The health-related activities and content utilized are presented to help students become more responsible for their overall health status and to prepare each student to demonstrate knowledge and skills that promote physical activity throughout their lives. Physical education uses physical activity as a means to help students acquire skills, fitness, knowledge and attitudes that contribute to their optimal development and well-being. Physical, mental, emotional and social health is strengthened by regular involvement in physical activities.

#### **Nutrition (Health Education) - Practical Living**

Proper nutrition is critical to good health. To maintain a healthy weight, good dietary habits and physical activity are essential. Nutritious foods are necessary for growth, development and maintenance of healthy bodies.

## **Cultures and Societies - Social Studies**

Culture is the way of life shared by a group of people, including their ideas and traditions. Cultures reflect the values and beliefs of groups in different ways (e.g., art, music, literature, religion); however, there are universals (e.g., food, clothing, shelter, communication) connecting all cultures. Culture influences viewpoints, rules and institutions in a global society. Students should understand that people form cultural groups throughout the United States and the World, and that issues and challenges unite and divide them.

## **English/Language Arts Common Core Standards**

CC.11-12.L.1 Conventions of Standard English: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

CC.11-12.L.2 Conventions of Standard English: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

CC.11-12.R.I.7 Integration of Knowledge and Ideas: 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.

CC.11-12.SL.5 Presentation of Knowledge and Ideas: Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

## **Technical Literacy Standards**

Reading / 9-10 / #3 – Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; attending to special cases or exceptions defined in the text.

Reading / 9-10 / #4 – Determine the meaning of symbols, key terms, and other domain-specific words/phrases as they are used in specific scientific and technical context.

Reading / 9-10 / #10 – By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.

Writing / 9-10 / #4 – Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose and audience.

Writing / 9-10 / #9 – Draw evidence from informational texts to support analysis, reflection, and research.

Writing / 9-10 / #10 – Write routinely over extended time frames and shorter time frames for a range of discipline-specific tasks, purposes, and audiences.

## **Mathematics Common Core Standards**

CC.9-12.F.IF.7 Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.\*

CC.9-12.N.Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.\*

CC.9-12.A.CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.\*

CC.9-12.S.IC.6 Evaluate reports based on data.\*

## **21st Century Skills and Knowledge**

Health Literacy

Critical Thinking and Problem Solving

Creativity and Innovation

Social and Cross-Cultural Skills

## **Learning Targets**

Students will apply menu-planning principles to develop and modify menus.

Students will apply operational principles of purchasing, cost per serving and receiving of food.

Students will develop a plan for weight loss / weight gain / weight maintenance, while examining nutrition through the lifecycle.

Students will plan and examine a diet plan for specific need (high fiber, low fat, etc.)

Students will utilize nutritional information for preparing and serving food for guests with special dietary needs.

Students will illustrate table settings for special occasions.

Students will practice using different styles of meal service.

Students will practice various food presentation techniques

Students will demonstrate advanced garnishing techniques

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Prerequisites	Foods and Nutrition				
Unit Title	<b><u>Cooking and Baking Applications</u></b>				

### **Technical Content**

5. Students will demonstrate proper safety, sanitation and storage techniques in handling food from purchase, preparation, cooking, cooling, to reheating.
6. Students will demonstrate safe, sanitary work habits required by the field.
18. Students will prepare various meats, seafood and poultry.
19. Students will prepare various stocks, soups, sauces and gravies.
20. Students will prepare canapés and appetizers.
21. Students will plan, prepare and serve a variety of meals and special events.
22. Students will apply the fundamentals of baking to a variety of products including yeast breads, pie crusts, pastries, and other breads.
23. Students will demonstrate and determine the correct cooking methods for a variety of food products (i.e. roasting, baking, broiling, smoking, grilling, sautéing, frying, deep frying, braising, stewing, poaching, steaming, woking, convection, microwaving, and other emerging technologies).
24. Students will use garnishes and entertaining to plan a simple food gathering for entertainment purposes.
25. Students will apply time management skills.
27. Students practice food presentation techniques.
29. Students will demonstrate proper measuring techniques.
30. Students will demonstrate written, verbal and non-verbal communication skills.
31. Students will apply math, science and communication skills within technical content.

### **AAFCS Pre-PAC Competencies**

- AAFCSNutritionFoodWellness FoodHandling 2C. Demonstrate ability to select, store, prepare, and serve nutritious, safe and appealing foods.
- AAFCSFoodScience FoodProcessing 4C. Evaluate procedures that affect product quality performance.
- AAFCSFoodScience FoodProcessing 4E. Implement food preparation, production, and testing systems.
- AAFCSFoodScience ProductDevelopment 5C. Prepare food products for presentation and assessment.

### **National Standards**

- 9.6.2 - Implement food preparation, production, and testing systems.
- 9.6.3 - Apply standards for food quality.
- 9.6.4 - Create standardized recipes.
- 9.5.5 - Implement procedures that affect quality product performance..
- 9.6.2 - Implement food preparation, production, and testing systems.
- 8.5 - Demonstrate professional food preparation methods and techniques for all menu categories to produce a variety of food products that meet customer needs.

### **KY Core Academic Standards (Big Idea)**

#### **Employability Skills - Vocational Studies**

Employability skills will focus on student's competencies with their work habits and academic/technical skills that will impact an individual's success in school and workplace. School-to-work transition skills will help students develop interpersonal skills and positive work habits.

#### **Research, Inquiry/Problem-Solving and Innovation - Technology**

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students will use technology for original creation and innovation.

#### **Safety (Health Education) - Practical Living**

Accidents are a major cause of injury and death to children and adolescents. Unintentional injuries involving a motor vehicle, falls, drowning, fires, firearms and poisons can occur at home, school and work. Safe behavior protects a person from danger and lessens the effects of harmful situations.

## **English/Language Arts Common Core Standards**

CC.11-12.L.1 Conventions of Standard English: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

CC.11-12.L.2 Conventions of Standard English: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

CC.11-12.L.4 Vocabulary Acquisition and Use: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 11–12 reading and content, choosing flexibly from a range of strategies.

## **Technical Literacy Standards**

Reading / 9-10 / #3 – Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; attending to special cases or exceptions defined in the text.

Reading / 9-10 / #4 – Determine the meaning of symbols, key terms, and other domain-specific words/phrases as they are used in specific scientific and technical context.

Reading / 9-10 / #10 – By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.

Writing / 9-10 / #10 – Write routinely over extended time frames and shorter time frames for a range of discipline-specific tasks, purposes, and audiences.

## **Mathematics Common Core Standards**

CC.9-12.N.Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.\*

CC.9-12.A.CED.1 Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.\*

## **21st Century Skills and Knowledge**

Collaboration

Communication

Creativity and Innovation

Critical Thinking and Problem Solving

Information Literacy

Initiative and Self-Direction

Leadership and Responsibility

Life and Career Skills

Productivity and Accountability

## **Learning Targets**

Students will prepare various meats, seafood and poultry.

Students will prepare various stocks, soups and gravies.

Students will prepare canapés and appetizers.

Students will apply the fundamentals of baking to a variety of products, including yeast breads, pie crusts, pastries and other breads.

Students will demonstrate and determine the correct cooking method for a variety of food products.

Students will apply principles of food preparation to produce in a variety of food products and beverages.

Students will demonstrate proper measuring techniques.

Students will apply time management skills.

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Prerequisites	Foods and Nutrition				
Unit Title	<b><u>Local, Regional and Global Cuisines</u></b>				

**Technical Content**

- 27. Students will practice food presentation techniques.
- 28. Students will prepare a variety of local, regional and global cuisines using appropriate methods and techniques.
- 30. Students will demonstrate written, verbal and non-verbal communication skills.
- 31. Students will apply math, science and communication skills within technical content.

**AAFCS Pre-PAC Competencies**

AAFCSNutritionFoodWellness Wellness 1A. Assess emotional, psychological, spiritual, cultural, and intellectual influences on individual/family food choices and nutrition and wellness across the lifespan.  
AAFCSNutritionFoodWellness Wellness 1B. Analyze economic and environmental influences on food choices and nutritional practices.  
AAFCSFoodScience ProductDevelopment 5E. Discuss factors affecting a person's food preference such as physical, psychological, cultural, and environmental influences.

**National Standards**

- 9.6.2 - Implement food preparation, production, and testing systems.
- 9.6.3 - Apply standards for food quality.
- 9.6.4 - Create standardized recipes.

**KY Core Academic Standards (Big Idea)**

**Cultures and Societies - Social Studies**

Culture is the way of life shared by a group of people, including their ideas and traditions. Cultures reflect the values and beliefs of groups in different ways (e.g., art, music, literature, religion); however, there are universals (e.g., food, clothing, shelter, communication) connecting all cultures. Culture influences viewpoints, rules and institutions in a global society. Students should understand that people form cultural groups throughout the United States and the World, and that issues and challenges unite and divide them.

**Employability Skills - Vocational Studies**

Employability skills will focus on student’s competencies with their work habits and academic/technical skills that will impact an individual’s success in school and workplace. School-to-work transition skills will help students develop interpersonal skills and positive work habits.

**Geography - Social Studies**

Geography includes the study of the five fundamental themes of location, place, regions, movement and human/environmental interaction. Students need geographic knowledge to analyze issues and problems to better understand how humans have interacted with their environment over time, how geography has impacted settlement and population, and how geographic factors influence climate, culture, the economy and world events. A geographic perspective also enables students to better understand the past and present and to prepare for the future.

**Research, Inquiry/Problem-Solving and Innovation - Technology**

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students will use technology for original creation and innovation.

**English/Language Arts Common Core Standards**

- CC.11-12.L.1 Conventions of Standard English: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- CC.11-12.L.2 Conventions of Standard English: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- CC.11-12.SL.5 Presentation of Knowledge and Ideas: Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

## **Technical Literacy Standards**

Reading / 9-10 / #3 – Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; attending to special cases or exceptions defined in the text.

Reading / 9-10 / #4 – Determine the meaning of symbols, key terms, and other domain-specific words/phrases as they are used in specific scientific and technical context.

Reading / 9-10 / #9 – Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.

Reading / 9-10 / #10 – By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.

Writing / 9-10 / #4 – Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose and audience.

Writing / 9-10 / #7 – Conduct short as well as more sustained research projects to answer a 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.

Writing / 9-10 / #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 specific 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 standard format for citation.

Writing / 9-10 / #9 – Draw evidence from informational texts to support analysis, reflection, and research.

Writing / 9-10 / #10 – Write routinely over extended time frames and shorter time frames for a range of discipline-specific tasks, purposes, and audiences.

## **Mathematics Common Core Standards**

CC.9-12.N.Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.\*

CC.9-12.A.CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.\*

CC.9-12.S.IC.6 Evaluate reports based on data.\*

CC.9-12.S.MD.7 (+) Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game).\*

## **21st Century Skills and Knowledge**

Collaboration

Communication

Creativity and Innovation

Critical Thinking and Problem Solving

Flexibility and Adaptability

Global Awareness

Initiative and Self-Direction

Leadership and Responsibility

Life and Career Skills

Productivity and Accountability

Social and Cross-Cultural Skills

## **Learning Targets** !'7`jW\ YfYhc`j JYk`GUa d`Y @UfbYf`5 Wlj JhYg

Students will prepare a variety of local, regional and global foods using appropriate methods and techniques.