

CTE CONTENT AREA: Family and Consumer Sciences
CONTENT MODULE TITLE: Food Systems and Production

MODULE DESCRIPTION

This module introduces students to the ways in which climate, geography, and culture influence the availability, sustainability, and quality of food. Students will examine the challenges, conditions, and technological advances which affect the food supply from production through consumption. They will identify and prepare foods to learn about cuisines, ingredients used, and industry standards. Students will have the opportunity to explore the wide variety of career options related to food systems and production and to identify the knowledge, skills, education, and training necessary for success within these fields.

GUIDING QUESTION

What knowledge and skills are necessary to demonstrate introductory understanding of choices, availability, sustainability, purchasing, preparation, and production of food?

MODULE CONTENT

Food Systems and Production

1. Basic Culinary Skills

Students will

- a) Apply basic culinary and management skills to the preparation of nutritious food
- b) Identify common kitchen tools, equipment, and the uses for each
- c) Demonstrate safety and sanitation procedures when handling food and tools
- d) Demonstrate accurate measuring of dry/solid, liquid, and small quantity ingredients
- e) Prepare a simple recipe

2. Food Preparation

Students will

- a) Identify specific foods from the region being studied
- b) Explore factors affecting regional food choices
- c) Prepare foods from the region being studied using ingredients common to the region
- d) Demonstrate the skills and techniques common to food preparation of the region
- e) Practice safety and sanitation practices and procedures in the preparation of food

3. Current Issues Related to Food in Global Societies

Students will

- a) Describe factors affecting the food supply, including but not limited to geography, climate, economics, transportation systems, farming methods, energy, population density, political systems, natural disasters, and food waste
- b) Identify how current laws, regulations, and policies affect the availability, selection, and preparation of food in various regions and countries

- c) Explore factors that create current food-related health concerns around the world

4. Future of Food in a Global Society

Students will

- a) Understand the components of sustainable food systems
- b) Explore the advantages and disadvantages of selecting and purchasing sustainable food products
- c) Evaluate the quality of foods produced through sustainable methods
- d) Identify the consequences of food scarcity and hunger on society
- e) Explore technological advances that affect the global food supply

5. Consumer Resources and Finance

Students will

- a) Demonstrate management of individual and family resources to select and purchase food
- b) Analyze decisions about providing safe and nutritious food for individuals and families
- c) Apply consumer skills to selecting and purchasing of food items
- d) Apply time management, organizational, and process skills to prioritize tasks and achieve goals

6. Career Pathways

Students will

- a) Explain roles and functions of individuals engaged in food industry careers
- b) Investigate education, training requirements, and opportunities for career paths in global food industry
- c) Assess personal employability skills for careers in the global foods industry and evaluate personal suitability for said careers

ILLUSTRATIVE ACTIVITIES by Theme Module

Career and Community Connections

Community Food Festivals

Students research ethnic festivals, cultural activities, and religious celebrations in the community and report on the history and purpose of the events. Students identify traditional foods served and explore factors that led to these food traditions. Teachers invite community representatives in to share and to teach students how to prepare examples of traditional celebration foods.

Communication and Interpersonal Relationships

Food Production Videos

Students work in small groups. Each group creates a video showing one step food goes through on its route to reach consumers: farm, processor, distribution center, retail outlet, or consumer. Student groups present their videos which together teach classmates how food flows through the production process.

Financial and Consumer Literacy

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Food Budgeting Decisions

Students select recipes for vegetable dishes they would like to prepare in class. Students determine the cost of preparing the recipes using organic vs. conventionally grown foods from the grocery store. Students research the cost of obtaining the same organic and conventional ingredients from a local source, such as a farmers market. As a class, students discuss how these findings impact consumers' food budgeting decisions.

Health, Safety, and Wellness

Kitchen Inspections

Provide students with the form that the local/state health department uses when conducting inspections of restaurant kitchens. Have students adjust the form to develop a classroom Kitchen Inspection Checklist. Following foods laboratory experiences, students assume the role of health inspector and complete the checklist noting areas in need of attention to bring them up to safety and sanitation codes.

Problem Solving and Innovation

Worldwide Food-Related Health Concerns

Students explore current food-related health concerns around the world (e.g. disease, famine, tourism, availability of potable water, poverty, climate change, threats to food supplies). Investigate organizations and technologies that are assisting with immediate threats and developing long-term solutions for these food-related health issues. Determine the possibility for, and the appropriateness of, a school campaign to support an organization involved in this work.

Sustainability

Classroom Herb Garden

Students determine the types of herbs used in a variety of regional cuisines. Provide seeds, growing medium, and containers for a classroom herb garden. Students create the classroom garden and tend the herbs. Students use classroom herbs in their foods laboratories.

STANDARDS ADDRESSED

New York State Career Development and Occupational Studies (CDOS) Standards Intermediate Level

<http://www.p12.nysed.gov/cte/>

Standard 1: Career Development

Students will be knowledgeable about the world of work, explore career options, and relate personal skills, aptitudes, and abilities to future career decisions.

Standard 2: Integrated Learning

Students will demonstrate how academic knowledge and skills are applied in the workplace and other settings.

Standard 3a: Universal Foundation Skills

Students will demonstrate mastery of the foundation skills and competencies essential for success in the workplace.

NYS Learning Standards for Family and Consumer Sciences

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Intermediate level

Standard 1: Personal Health and Fitness

Students will have the necessary knowledge and skills to establish and maintain physical fitness, participate in physical activity, and maintain personal health.

Standard 2: Safe and Healthy Environment

Students will acquire the knowledge and ability necessary to create and maintain a safe and healthy environment.

Standard 3: Resource Management

Students will understand and be able to manage their personal and community resources

Common Career Technical Core Standards

<https://www.careertech.org/career-ready-practices>

Career Ready Practices

2. Apply appropriate and academic and technical skills
4. Communicate clearly and effectively and with reason
5. Consider environmental, social, and economic impacts of decisions
6. Demonstrate creativity and innovation
7. Employ valid and reliable research strategies
8. Utilize critical thinking to make sense of problems and persevere in solving them
9. Model integrity, ethical leadership, and effective management
12. Work productively in teams while using cultural global competence

National Family and Consumer Sciences Standards

<http://www.nasafacs.org/>

14.0 Nutrition and Wellness

Demonstrate nutrition and wellness practices that enhance individual and family well-being

14.1 Analyze factors that influence nutrition and wellness practices across the life span.

- 14.1.1 Explain physical, emotional, social, psychological, cultural, and spiritual components of individual and family wellness.
- 14.1.2 Investigate the effects of psychological, cultural, and social influences on food choices and other nutrition practices.
- 14.1.3 Investigate the governmental, economic, and technological influences on food choices and practices.
- 14.1.4 Analyze the effects of global, regional, and local events and conditions on food choices and practices.
- 14.1.5 Analyze legislation and regulations related to nutrition and wellness.

14.3 Demonstrate ability to acquire, handle, and use foods to meet nutrition and wellness needs of individuals and families across the life span.

- 14.3.3 Demonstrate ability to select, store, prepare, and serve nutritious, aesthetically pleasing food and food product.
- 14.3.4 Evaluate policies and practices that affect food security, sustainability, food integrity, and nutrition and wellness of individuals and families.

14.4 Evaluate factors that affect food safety from production through consumption

- 14.4.1 Analyze conditions and practices that promote safe food handling.
- 14.4.2 Analyze safety and sanitation practices.

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14.4.3 Analyze how changes in national and international food production and distribution systems influence the food supply, including sustainability, organic food production and the impact of genetically modified foods.

RESOURCES

National Agriculture in the Classroom

Filling the Global Grocery Bag

<https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=29>

The National Agricultural Literacy Curriculum Matrix is an online, searchable, and standards-based curriculum map for K-12 teachers. The Matrix contextualizes national education standards in science, social studies, and nutrition education with relevant instructional resources.

USDA National Institute of Food and Agriculture (NIFA)

Hunger and Food Security Programs

<https://nifa.usda.gov/program/hunger-food-security-programs>

NIFA addresses hunger and food security through research, education, and extension work within the Land-Grant University System; through federally funded state nutrition education programs; through grant programs for private nonprofits to address community food security issues; and through partnerships across USDA.

United Nations

World Food Program (WFP)

<http://www.wfp.org/>

In emergencies, WFP gets food to where it is needed, saving the lives of victims of war, civil conflict, and natural disasters. After the cause of an emergency has passed, WFP uses food to help communities rebuild their shattered lives. WFP is part of the United Nations system and is voluntarily funded.

Utah Education Network

Foreign Foods

<https://www.uen.org/lessonplan/view/17665>

UETN connects school districts, schools, and higher education institutions to a robust network and quality educational resources.

Association of Career and Technical Education

Career Planning Guide

https://www.acteonline.org/wp-content/uploads/2018/02/ACTE_CC_Paper_FINAL.pdf

Research has identified middle school as a time when students can benefit the most from career exploration, a process of building self-awareness, learning about potential careers, and developing a plan for reaching future goals.

AdvanceCTE

Middle Level Career Interest Inventory

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<https://cte.careertech.org/sites/default/files/StudentInterestSurvey-English.pdf>

AdvanceCTE provides a Career Interest Inventory worksheet to use with students in helping them identify the potential matches to the 16 career clusters available to them

Association of CTE Administrators (ACTEA)

CTE Strong Videos

<http://www.ctestrong.com>

Edge Factor has created a series of inspirational videos related to career and education that provide students with a very contemporary perspective on CTE options. Career Cluster videos provide a new look at the many career options that students have in high school and beyond.

Career and Technical Education Technical Assistance Center of New York (CTE TAC)

<http://nyctecenter.org/>

The Career and Technical Education Technical Assistance Center (CTE TAC) operates under a state contract to assist the New York State Education Department (NYSED) in carrying out its mission of improving the quality, access, and delivery of career and technical education through research-based methods and strategies resulting in broader CTE opportunities for all students.

New York State Association of Family and Consumer Sciences Educators (NYS AFCSE)

<http://www.nysafcse.org/>

Family and Consumer Sciences education in New York state is delivered through a variety of courses designed to promote student attainment of the intermediate and commencement level New York State Learning Standards for Family and Consumer Sciences (FACS) and Career Development and Occupational Studies (CDOS). This professional organization hosts a website that includes "Curriculum" and a "Best Practices" tabs.