Arkansas CTE

Food Safety and Nutrition: Grades 10-12 (2020)

Demonstrate practices and procedures that assure personal and workplace health and hygiene. 1

1 **Identify the components of a good personal hygiene program.** 1.1

1 Demonstrate proper handwashing techniques. 1.1.1

2 Identify guidelines for bare hand contact with ready to eat food. 1.1.2

3 Describe the proper first aid procedures for various emergencies. 1.1.3

4 Evaluate guidelines for proper wound care of food servers. 1.1.4

5 Develop policies regarding employees eating, drinking, using tobacco products (or tobacco alternatives.) 1.1.5

2 **Investigate ways to minimize the impact of employee illness in a food establishment.** 1.2

1 Identify transmittable illnesses not spread directly from ingesting food. 1.2.1

2 Examine ways food handlers contaminate food. 1.2.2

3 Develop guidelines for reporting illness in a food establishment. 1.2.3

4 Conclude when to restrict employees from food handler roles, including policies for reporting heath issues. 1.2.4

5 Examine Arkansas Department of Health guidelines for food handlers who are ill in the work place. 1.2.5

Describe foodborne illnesses, contaminants, and allergens. 2

1 **Evaluate the effects of foodborne illnesses on individuals and organizations.** 2.1

1 Examine current issues involving foodborne illness. 2.1.1

2 Identify the five most common risk factors for foodborne illness and challenges to food safety. 2.1.2

3 Assess the effects of foodborne illness on an establishment. 2.1.3

4 Identify populations at high risk for foodborne illness. 2.1.4

2 **Analyze biological contaminants (viruses, bacteria, parasites, and fungi) that may contaminate food.** 2.2

1 Investigate methods for controlling the common viruses, bacteria, parasites, and fungi that result in foodborne illnesses. 2.2.1

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Investigate the symptoms of foodborne illnesses caused by common viruses, bacteria, parasites, and fungi. 2.2.2

3 **Distinguish between physical and chemical contaminants.** 2.3

1 Identify common sources of chemical contaminants and explain how to prevent chemical contamination. 2.3.1

2 Identify common sources of physical contaminants and explain how to prevent contamination. 2.3.2

4 **Investigate food allergens and how they may be avoided.** 2.4

1 Compile a list of common symptoms caused by food allergies. 2.4.1

2 Classify common food allergens (The Big Eight). 2.4.2

3 Evaluate successful techniques for allergic reaction prevention, identifying ways to prevent cross contact. 2.4.3

Describe the proper processes for cleaning and sanitizing food preparation equipment. 3

1 **Investigate the process for cleaning and sanitizing within a home kitchen or food service establishment.** 3.1

1 Differentiate between cleaning and sanitizing within a home kitchen or food service establishment. 3.1.1

2 Determine when all food contact services must be washed, rinsed, and sanitized. 3.1.2

3 Investigate factors that affect the cleaning process and the four categories of cleaners. 3.1.3

4 Identify the two methods used to sanitize surfaces and the factors that affect the sanitizing process. 3.1.4

2 **Identify the methods used in home and food service operations for washing dishes.** 3.2

1 Compare the types of dishwashing machines used in home kitchens and food service establishments 3.2.1

2 Demonstrate the procedure for manual dishwashing in a three-compartment sink. 3.2.2

3 **Identify procedures for storing sanitized equipment and cleaning supplies.** 3.3

1 Demonstrate procedure for properly storing sanitized tableware, utensils, and equipment. 3.3.1

2 Demonstrate proper storage of cleaning tools and supplies. 3.3.2

Assess the flow of food to prevent contamination. 4

1 **Investigate ways to monitor the time and temperature of food.** 4.1

1 Determine and demonstrate how to avoid the time and temperature abuse of food. 4.1.1

2 CRP7 Investigate the guidelines for thermometer types, uses, care, and demonstrate methods of calibration. 4.1.2

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3 Compare and contrast the uses of thermometers during the preparation of foods throughout the lab experience. 4.1.3

2 Determine proper handling procedures for purchasing. 4.2

1 Identify criteria for accepting specific food products. 4.2.1

2 Identify proper procedures for rejecting shipments. 4.2.2

3 Investigate the guidelines for proper storage of food products. 4.3

1 Identify general guidelines for inventory rotation. 4.3.1

2 Investigate basic guidelines for refrigerated and frozen food storage. 4.3.2

3 Develop basic guidelines for dry storage of food products. 4.3.3

4 Examine the differences between use by dates, sell by dates, and best by dates. 4.3.4

4 Develop guidelines for safe food production. 4.4

1 Compare and contrast different methods for properly thawing food. 4.4.1

2 Discuss specific guidelines for preventing cross contamination in food preparation. 4.4.2

3 Identify minimum internal cooking temperatures for various food products. 4.4.3

4 Investigate the guidelines for properly cooling and reheating foods. 4.4.4

5 Plan and prepare a variety of meat and poultry dishes following minimum internal cooking temperatures. 4.4.5

Assess the need for integrated pest management programs, food service inspection, and active managerial control systems. 5

1 Evaluate the benefits of an integrated pest management program. 5.1

1 Generate a list of signs of various pest infestations. 5.1.1

2 Investigate the health concerns related to a pest infestation. 5.1.2

3 Critique various methods for controlling pests that are not safe in food preparation. 5.1.3

2 Evaluate the role of food service inspection agencies. 5.2

1 Describe the role the U.S. Department of Agriculture (USDA) in promoting food safety. 5.2.1

2 Differentiate the role of the Food and Drug Administration (FDA) in food safety compared to the role of the U.S. Department of Agriculture (USDA) 5.2.2

3 Evaluate the role of active managerial control systems. 5.3

1 Debate situations that might warrant immediate closure of an establishment (such as a power outage, fire, flood, or water service interruption.) 5.3.1

2 Identify ways to prepare for and recover from a crisis using active managerial controls. 5.3.2

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Examine the role of nutrition and weight control on health problems and diet practices. 6

1 **Describe psychological, physiological, and environmental reasons for eating.** 6.1
   1 Analyze people's influences from environment, family, culture, technology, and lifestyles on food choices. 6.1.1
   2 Investigate personal influences from above for psychological, physiological and environmental reasons for eating. 6.1.2

2 **Identify basic nutrient groups and their sources and functions.** 6.2
   1 Identify nutrients and their sources. 6.2.1
   2 Classify nutrients and their functions. 6.2.2
   3 Formulate nutritional analysis of a variety of recipes. 6.2.3

3 **Evaluate the effect of lifestyle choices on wellness.** 6.3
   1 Describe nutritional concerns for individuals throughout their lifestyle and develop a strategy for healthy personal lifestyle choices 6.3.1
   2 Classify nutritional needs for the individual throughout the lifecycle (Pregnancy, Infant, Toddler, Preschool, School Age, Adolescents, Young Adults, Middle Adults and Older Adults) 6.3.2
   3 Actively identify a nutritional issue of local, state, national, or global concern and create a presentation, using the FCCLA STAR Event Public Policy Advocate guidelines. 6.3.3

4 **Explain MyPlate including divisions, physical activity, and recommended allowances.** 6.4
   1 Interpret MyPlate using the website, including divisions, physical activity, and recommended serving allowances. 6.4.1
   2 Develop a personalized nutrition and exercise plan using the MyPlate website. 6.4.2

5 **Identify food related health problems.** 6.5
   1 Describe and investigate characteristics of food related health problems. (High Blood Pressure, Heart Disease, Diabetes I&II, Lactose Intolerance, Food Allergies, Food Sensitivities, Obesity, Vitamin/Mineral Deficiencies, and Malnutrition). 6.5.1
   2 Compare and contrast eating disorders. 6.5.2
   3 Examine the causes/effects of being underweight and overweight. 6.5.3
   4 Compile menus to meet various nutritional need. 6.5.4

Explore the use of technology in the food industry. 7

1 **Examine effects of technology in the application of practical purposes for safety, availability, choices, and nutrient content of food.** 7.1
   1 Explore the effects of technology in the application of practical purposes for safety, availability, choices, and nutrient content of food. 7.1.1
   Provide examples of food created with technological advances. 7.1.2

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3 Justify the four reasons additives are used in food products (adds nutrients, preserves quality, aids in processing or preparation, and enhances flavors or colors) 7.1.3

4 Identify items that are not Generally Recognized As Safe (GRAS). 7.1.

2 Investigate current issues, trends, and environmental concerns related to food technology. 7.2

1 Explore current issues and trends in food technology to include, but not limited to: easy preparation, great taste, nutrition, allergies, food substitutes, health foods, fast food, and engineered foods. 7.2.1

2 Analyze environmental issues related to food resources. 7.2.2

3 Compare advantages and disadvantages of convenience foods. 7.3

1 Compare cost, quality, and time in the preparation of convenience food and the same food prepared conventionally. 7.3.1

2 Analyze reasons teens choose convenience foods over conventional foods. 7.3.2

3 Analyze current trends in meal delivery services including but not limited to nutritional needs, budget, ease of use, and continued interest. 7.3.3

4 Compare ways to do food price comparison using your computer, applications, and store websites. 7.3.4

Apply concepts for selecting and purchasing food. 8

1 Identify resources to consider in planning appealing, nutritious meals. 8.1

1 Evaluate how the following resources: time, energy, food choices, money, preparation skills, availability, equipment and available technology affect menu planning. 8.1.1

2 Investigate why food that is lower in cost often has poor nutritional value. 8.1.2

3 Plan and critique menus for family meals using meal pattern guidelines (color, shape/size, flavor, aroma, texture, temperature, dietary guidelines). 8.1.3

2 Describe consideration necessary to make informed food purchases. 8.2

1 Analyze information, required by law, on food labels and nutritional facts panels. 8.2.1

2 Investigate various methods of shopping for food. 8.2.2

3 Compare and contrast generic, store brand, and name brand. 8.2.

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Apply concepts of kitchen organization, selection, maintenance, and effects of technology for large and small appliances; and conservation of resources. 9

1. **Describe kitchen work centers, work triangle and floor plans.** 9.1
   1. Explain the work areas and their uses including Refrigerator/Freezer Center, Range Center, and Sink/Clean-up Center. 9.1.1
   2. Design six different floor plans, incorporating the kitchen work triangle in each floor plan. 9.1.2
   3. Create the traffic plan for each of the six different floor plans, highlighting the advantages and disadvantages of the work triangle. 9.1.3
2. **Describe selection, use, care, and trends of large and small kitchen appliances.** 9.2
   1. Investigate small kitchen appliances, their uses, and maintaining the equipment. 9.2.1
   2. Identify and create beverages utilizing small appliances in the preparation. 9.2.2
   3. Investigate large kitchen appliances, their uses, and maintaining the equipment. 9.2.3
   4. Discuss the trends in colors, size, style, and available technology. 9.2.4
   5. Develop methods of choosing the correct appliances for different uses. 9.2.5
3. **Identify ways to conserve resources and the effects of technology in kitchen equipment.** 9.3
   1. Investigate conservation methods used in the kitchen. 9.3.1
   2. Research environmental issues that adversely influence human health and well-being, using the FCCLA STAR Event Environmental Ambassador guidelines. 9.3.2
   3. Examine product energy guides and justify using Energy Star equipment. 9.3.3
   4. Examine current research and the future of kitchen technology. 9.3.4
   5. Compare and contrast the advantages and disadvantages of technology with kitchen equipment. 9.3.5

Apply concepts of food preparation required for success in the food industry. 10

1. **Identify food preparation tools and equipment.** 10.1
   1. Chart functions of preparation tools and equipment. 10.1.1
   2. Analyze the types of knives and their uses in food preparation. 10.1.2
   3. Compare knife cuts and incorporate a variety of knife cuts into recipe and presentation of recipes. (chiffonade, mince, julienne, dice, cube, and chop) 10.1.3
   4. Choose and prepare a variety of garnishes, and decorative food centerpieces. 10.1.4
2. **Interpret recipes and their components, analyze abbreviations and equivalent measurements, and demonstrate measuring techniques.** 10.2
   1. Identify the steps in using a recipe and examine various recipe formats. 10.2.1
   2. List and match abbreviations commonly found in recipes. 10.2.2
   3. Identify equivalent measurements commonly used in recipes. 10.2.3

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4 Explain and demonstrate measuring techniques and equipment. 10.2.4

5 Modify recipes to change the yield. 10.2.5

6 Specify substitutions commonly used in recipes. 10.2.6

3 Design and prepare recipes that meet various nutritional needs. 10.3

1 Distinguish the differences among a variety of food preparation techniques (bake, barbeque, baste, beat, blend, braise, bread, broil, brown, candy, coat, core, cream, cut in, deep fry, dice, dredge, dress, flour, fold, fry, glaze, grate, grease, knead, marinade, pan broil, par boil, poach, puree, reconstitute, reduce, roast, sauté, scald, score, sift, simmer, skim, steam, steep, stew, stir fry, strain, toast, truss, whip) 10.3.1

2 Connect knowledge of recipes and measuring techniques to prepare selected foods using a variety of methods. (appetizers, beverages, casseroles, dairy products, desserts, eggs, fish, fruits, grain products, meat and poultry, quick breads, salads, sandwiches, sauces, soups, vegetables, yeast breads) 10.3.2

Analyze meal service patterns and proper manners for serving, eating, and clearing meals in public and private. 11

1 Discuss types of meal service, table settings and appointments. 11.1

1 Examine and demonstrate the different types of meal services. 11.1.1

2 Compile and discuss factors to consider in planning for special occasions. 11.1.2

3 Identify the different types of table settings and service. 11.1.3

4 Compare and contrast traditional table appointments to contemporary table appointments. 11.1.4

2 Describe proper manners for serving, eating, and clearing meals. 11.2

1 Demonstrate proper table manners in public and private settings. 11.2.1

2 Create a guide to proper table etiquette in both public and private settings. 11.2.2

3 Assess guidelines for restaurant etiquette, including gratuity. 11.2.3

Investigate careers related to food management. 12

1 Explore careers related to nutrition, weight control, and the food service industry. 12.1

1 Research careers related to nutrition, weight control, and the food service industry. 12.1.1

2 Examine programs of study in the fields of food safety, nutrition, dietetics, food science. 12.1.2

2 Develop employability skills. 12.2

1 Create a portfolio, including an application, resume, letter of application, etc. 12.2.1

2 Report on a particular career of choice related to nutrition, weight control, or food service industry. 12.2.2