Foods and Cooking Study Guide
PART ONE: Topics

Disclaimer: Objectives listed are meant to help 4-Hers study for the state 4-H Food and Nutrition Quiz Bowl. *This is NOT to be viewed as the list of questions that will be asked.* Questions will be based on the concepts and objectives outlined in the guide.

References: To address the identified objectives, teams and coaches should consult with the references below. For each objective, at least one appropriate reference is given.

The names of the references are abbreviated as follows:


3. **Texas A&M AgriLife Extension Service Publications**
   Nutrient Needs at a Glance L-1875 and Safe Home Food Storage B-5031 [https://agrilifebookstore.org/](https://agrilifebookstore.org/)

4. **USDA MyPlate (USDA)**
   [https://www.choosemyplate.gov/ten-tips](https://www.choosemyplate.gov/ten-tips)
   Focus on these tip sheets:
   - Got Your Dairy Today?
   - Add more Vegetables to Your Day
   - Vary Your Protein Routine
   - Focus on Fruits
   - Healthy Eating for Vegetarians
   - Make Half Your Grains Whole
   - Be Food Safe

5. **2015-2020 Dietary Guidelines for Americans Executive Summary (DGA)**

6. **New Nutrition Facts Label – Key Changes – (FDA)**

After each objective the preferred reference is listed.

*For official Quiz Bowl contest rules, consult the NJ 4-H Foods Quiz Bowl Guide*
Category I: Basic Nutrition

A. Carbohydrate

1. Know the energy content of carbohydrates. (ADA, 59)

2. Compare simple versus complex carbohydrates. Be able to give examples of each. (ADA, 55-57)

3. Discuss the popular myths about sugar (example: sugar causes hyperactivity). (ADA, 59-61)

4. Discuss lactose intolerance with respect to signs/symptoms, cause, and recommended treatment. (ADA, 560-564)

5. Define fiber and be able to distinguish between soluble, insoluble, beta glucan, and whole grain forms. Be able to list/identify food sources of each type of fiber as well as discuss their health benefits. (ADA, 63-69)

6. According to the American Dietetic Association, how many grams of fiber should adults try to include in their diets? Discuss what might happen if too much fiber is consumed. (ADA, 72-73)

7. Discuss ways a healthy person can increase the amount of fiber in his/her diet. (ADA, 72-78)

8. According to the Institute of Medicine, what percentage of our energy should come from carbohydrates? (ADA, 69)

9. Understand the roles that added sugars play in food. What types of foods are likely to contain added sugars? (ADA 75-76)

10. Discuss the link between dietary carbohydrates and the development of tooth decay (caries). (ADA 61-63)

11. What words on a food label, other than “sugar,” indicate that a food has added sugar? (ADA, 79-80)

12. Discuss the artificial sweeteners including acesulfame K, aspartame, saccharin, sucralose, tagalose, and neotame including sweetness compared to sugar, caloric content, and use in cooking. (ADA, 80-87)

B. Protein

1. Discuss the energy content of protein. (ADA, 90)

2. Discuss the functions of protein. (ADA, 89-90)

3. What are complete and incomplete proteins? What are food sources of these types of proteins? (ADA, 89)

4. Generally speaking, what percentage (range) of our calories should come from protein? (ADA, 90)
5. How might protein help someone manage their weight? (ADA, 90)

6. Understand the difference between essential and non-essential amino acids. (ADA 88-89)

C. Fat

1. Understand the importance of dietary fat. (ADA, 99-101)

2. Know the energy content of dietary fat (kcal/gram). (ADA, 100)

3. Know the difference between saturated, monounsaturated, polyunsaturated, omega3, and trans fatty acids including food sources and potential effects on blood lipids. (ADA, 104-110, 120; DGA-27)

4. Explain the difference between dietary cholesterol and blood cholesterol. Identify food sources that contain high amounts of cholesterol. (ADA, 114-115)

5. Distinguish between saturated-fat-free, low saturated fat, fat-free, low-fat, light, low-fat meal, lean, extra lean, cholesterol-free, and reduced fat foods. (ADA, 121)

6. What are phytosterols? How might phytosterols be beneficial to someone with high cholesterol? (ADA, 112)

D. Vitamins

1. Describe the differences between water-soluble and fat-soluble vitamins. (ADA, 123)

2. Discuss the fat-soluble vitamins (A,D,E,K) with respect to their major functions, what happens if you consume too much of the vitamin (excess/toxicities), and what happens if you don’t get enough (deficiencies). Be able to identify major food sources of each fat-soluble vitamin. Are there any fat-soluble vitamins that can be made by our body? If so, which ones and how? (ADA, 123-130; Texas A&M AgriLife Extension Service L-1875, Nutrient Needs at a Glance)

3. Discuss the water-soluble vitamins (B-vitamins and C) with respect to functions, signs of a deficiency, and signs of toxicities. Be able to identify major food sources of each water-soluble vitamin. Are there any water-soluble vitamins that can be made by our body? If so, which ones and how? (ADA, 130-139; Texas A&M AgriLife Extension Service, L-1875 Nutrient Needs at a Glance)

E. Minerals

1. Discuss the following minerals with respect to (1) functions in the body, (2) signs of a deficiency, (3) what happens if you consume too much of the mineral, (4) and major food sources of that mineral: calcium, phosphorus fluoride, iodine, iron, potassium, selenium, sodium, magnesium, chloride, chromium, and zinc. (ADA, 139-152; 159-168; Texas A&M AgriLife Extension Service L-1875 Nutrient Needs at a Glance)
F. Fluids

1. What role(s) does water play in the body? (ADA, 169-170)

2. How much water is in the average body? (ADA, 169)

3. Generally speaking, how long could a person live without water? (ADA, 169)

4. Discuss the general recommendation for water/fluid intake and the factors that may affect that recommendation. (ADA, 170-173)

5. Know the difference(s) between hard and soft water. (ADA, 175)

6. Bottled water can be one of several types. What is the difference between artesian water, mineral water, purified water, sparkling water, and spring water? Which government agency regulates bottled water? (ADA, 173-177)

7. How much water (per person, per day) should you keep on hand in case of an emergency? (ADA, 175)

G. Food Additives and Biotechnology

1. Be able to discuss the difference between enriched and fortified foods. (ADA, 131,214)

2. Which government agency is responsible for the regulation of food additives? (ADA, 217-218)

3. When discussing food additives, what is meant by the initials GRAS? (ADA, 217)

4. Discuss the following categories of food additives with respect to their function(s) in food preparation/processing: (ADA, 213-217) (a) emulsifiers (b) anti-caking agents (c) humectants (d) leavening agents (e) pH control agents (f) sulfites (g) thickeners/stabilizers (h) antioxidants (i) citric acid (j) anti-microbial agents (k) sodium nitrite (l) tocopherols (m) calcium propionate (n) maturing/bleaching agents (o) flavor enhancers (p) carrageen

5. What is irradiation? Know the types of foods commonly irradiated and why. How are irradiated foods identified? (ADA, 213)

6. What types of pesticides are used to protect crops? Which government agency monitors pesticide residues in food? (ADA, 219-222)

7. What is meant by the term “organically grown?” What are the benefits of organically produced food? (ADA, 223-224)

8. What are the proposed benefits of genetically modified foods? (ADA, 225-227)

H. Dietary Guidance (Dietary Guidelines and MyPlate)

1. According to the USDA and the USDHHS, what percentage of American households have difficulties in acquiring enough food to meet their needs? (DGA)
2. Define “food access” and the factors which influence food access. (DGA)

3. The Dietary Guidelines for Americans are targeted towards individuals of a certain age. What is that age range? (DGA)

4. What mineral is often consumed in excess? (DGA)

5. What are the current sodium intake recommendations? (DGA)

6. According to the Dietary Guidelines for Americans, what are the current recommendations for saturated fat and added sugars? (DGA)

7. Understand the type and amount of fish that a pregnant woman can eat and why. Also, be able to list those species of fish that a pregnant woman should not consume. (DGA)

8. Describe vitamin recommendation(s) for individuals 50 years of age and older (DGA).

9. Understand the food groups featured in MyPlate including: (a) the amount needed for one ounce of grains or protein foods; (b) the amount of fruits, vegetables, or milk foods that equal one cup; and (c) recommendations specific to each food group. (USDA)

10. Be able to identify sources of whole grains and explain how to increase whole grains in one’s diet. (USDA)

**Category II: Food Preparation Skills and Storage**

*Note: Proper food preparation and storage requires skills and knowledge in food safety. Therefore, many of these objectives address food preparation/storage and food safety.*

**A. Milk & Milk Products**

1. Understand the recommended guideline(s) for the storage of butter, including temperatures and length of time. (FOOD, 64; Texas AgriLife Extension Service B5031, Safe Home Food Storage)

2. Natural cheese, processed cheese, and cream - know the different categories and the standards that must be met. (FOOD, 64-65)

3. Understand the recommended guideline(s) for the storage of cheese, including temperatures and length of time. (FOOD 64-65)

4. Why is milk homogenized? (FOOD, 67)

5. Discuss the benefits of milk pasteurization. (FOOD, 67)

6. Understand the recommended guideline(s) for the storage of milk, yogurt, and buttermilk including length of time. (FOOD, 69; Texas AgriLife Extension Service B-5031, Safe Home Food Storage)

7. Explain the differences between ice cream, ice milk, and sherbet. (FOOD, 69-70)
B. Meat/Fish/Poultry/Eggs

1. Compare roasting, oven broiling, and grilling as dry heat cooking methods. (FOOD, 77)

2. Discuss the three methods of cooking in liquid. (FOOD, 81)

3. Discuss how to determine the degree of doneness (using a meat thermometer) for beef, lamb, veal, pork, and ham. (FOOD, 82)

4. Discuss using the microwave to cook meats, including methods to promote even cooking. (FOOD, 84)

5. Describe methods for determining freshness of fresh finfish, fresh shellfish, and frozen fish. (FOOD, 85-86)

6. Understand the recommended guidelines for the storage of fish products, including the amount of time products can be refrigerated/frozen before use and proper storage and thawing methods. (FOOD, 86-87; Texas AgriLife Extension Service B5031, Safe Home Food Storage)

7. Describe how to determine if fish is properly cooked. Include a general method to estimate the amount of time needed to cook fish. (FOOD, 88-89)

8. Understand the recommended guidelines for the storage of poultry products including the amount of time turkey and chicken products can be refrigerated/frozen before use, and proper storage and thawing methods. (FOOD, 92-96; Texas AgriLife Extension Service B-5031, Safe Home Food Storage)

9. Discuss the whipping properties of eggs and describe the conditions for getting the best results. (FOOD, 98)

10. Discuss the use of microwaves for preparing eggs. Include situations where caution should be used. (FOOD, 98)

11. Discuss the proper care and handling of eggs. (FOOD, 98)

12. What is the purpose of “beating” egg whites when preparing omelets? (FOOD, 98)

13. What is the proper procedure(s) for handling and storing frozen egg products, liquid egg products, and dried egg products? (FOOD, 99-100)

14. Identify the refrigerator storage times for ground beef. (FOOD, 76)

C. Fruits

1. Discuss different uses for apples, including examples of specific types of apples for each use. (FOOD, 101)

2. Understand the recommended guidelines for the storage of fresh fruits, including methods to achieve and maintain ripeness/freshness. (FOOD, 102-103; Texas AgriLife Extension Service, B-5031, Safe Home Food Storage)
3. Discuss what to look for and what to avoid when choosing apples, avocados, bananas, blueberries, cantaloupes, grapefruit, grapes, honeydew, kiwifruit, oranges, peaches, pears, strawberries, and watermelon. (FOOD, 103-107)

4. Understand how fruit fits into MyPlate recommendations. (MyPlate)

D. Vegetables

1. Be able to identify cruciferous vegetables. (FOOD, 108)

2. Understand the recommended guidelines for the storage of canned, frozen, and dried vegetables including best storage temperatures and length of time. (FOOD, 108-109; Texas AgriLife Extension Service, B-5031 Safe Home Food Storage)

3. Understand the recommended guidelines for the storage of fresh vegetables, including best storage temperatures to maintain freshness and length of time. (FOOD, 110-114; Texas Cooperative Extension, B-5031 Safe Home Food Storage)

4. Discuss what to look for and what to avoid when choosing asparagus, broccoli, corn, lettuce, peas, peppers, potatoes, squash, and tomatoes. (FOOD, 109-113)

5. Discuss what determines the amount of time needed to cook a vegetable. (FOOD, 114)

E. Grain Products

1. Discuss the difference between cornmeal, enriched cornmeal, corn grits, hominy, and cornstarch. (FOOD, 119)

2. Understand the recommended guidelines for the storage of grain and cereal products including refrigeration/freezing and length of time. (FOOD, 122-124; Texas AgriLife Extension Service, B-5031 Safe Home Food Storage)

3. Compare the following types of flour: all-purpose, bread, semolina, soy enriched, and self-rising. (FOOD, 121-123)

F. Fats and Oils

1. What is the definition of a fat? What is the definition of oil? (ADA, 55-56; DGA) 11

2. Discuss the origin and uses of animal fat shortenings (lard, tallow). (FOOD, 128; Texas AgriLife Extension Service, B-5031 Safe Home Food Storage)

3. Discuss the differences among canola oil, olive oil, tropical oils, sesame oils, and marine oils including any distinguishing nutritional factors and reasons for use. (FOOD, 128-131)

4. Discuss the recommended guidelines for the storage of various fats, vegetable shortening, and oils. (FOOD, 132)

5. Discuss the definition of smoke point (pertaining to fats and oils) and its importance when frying with fats and oils. (FOOD, 132)
6. Identify how a roux is made. (FOOD, 62)

**G. Food Preservation**

1. Explain the differences between hot pack and raw pack methods of packing tomatoes and other vegetables and fruits into jars. (FOOD, 170)

2. Differentiate between jelly, jam, freezer jam, conserves, marmalade, preserves, and fruit butter. (FOOD, 172-173)

3. Discuss how to package fruits and vegetables for freezing. What types of food should not be frozen? (FOOD, 175-178)

4. Can an individual use a microwave oven to dry fruits? Why or why not? (FOOD, 167)

5. Discuss characteristics of a quality freezer container that should be used when freezing foods. (FOOD, 175)

6. What are the 2 types of canners used for home food preservation? (FOOD, 168-170)

7. When canning low acid foods, what type of canner should be used? (FOOD, 167-170)

8. How often should a consumer test the accuracy of a pressure canner dial gauge? What determines if/when the pressure gauge should be replaced? (FOOD, 168)

9. Discuss tips to follow when drying, canning, and freezing to ensure a safe and quality product. (FOOD, 167-178)

10. Identify methods to store dried food. (FOOD, 167-173)

**H. Weights, Measures, and Can Sizes**

1. Understand the common units of weight and volume. Be able to convert from one unit to another (e.g. 16 tablespoons = 1 cup). (FOOD, 38-39)

2. Know the approximate measure (in cups) of commercial-sized cans. (FOOD, 165-166)

**I. Miscellaneous**

1. Describe the differences between raw sugar, granulated white sugar, powdered sugar, and brown sugar including uses for each. (FOOD, 125)

2. What is yeast, how does it work, and in what forms can it be purchased? (FOOD, 134)

3. Identify/define the following food science terms: antioxidant, carotenoids, chlorophyll, dehydration, denaturation, hydration, kilocalorie, kosher, pickling, rancidity, smoke point. (FOOD, 50-52)

4. Identify/define the following foods and cooking terms: julienne, lukewarm, meringue, puree, a la carte, al dente, a la king, almandine, au jus, baklava, bisque, bouillabaisse, bouillon,
Category III: Nutrition and Health

A. Obesity

1. What is Body Mass Index (BMI), how is it calculated and what do the numbers mean? (ADA, 22)

2. Name the health risks associated with being overweight or obese? (ADA, 23-25)

3. What is obesity? What are your chances of becoming obese if one of your parents is obese? How many calories make up one pound of fat? (ADA, 29)

4. Understand the meaning of the following terms often found on food labels: calorie-free, reduced, high, good source, lite, light, healthy, lean, low-calorie, reduced or fewer calories, and low calorie meal. (ADA, 40)

B. Blood Pressure/Heart Disease

1. List risk factors for developing heart disease. Why should we be concerned about heart disease? (ADA, 583-584)

2. What is cholesterol, and how is it connected to heart disease? (ADA, 585-592)

3. Discuss the differences between HDL- and LDL-cholesterol. (ADA, 585-592)

4. How can someone increase their HDL blood level and decrease their LDL-blood level? (ADA, 586)

5. What are some dietary factors that can lead to elevated cholesterol levels? Which factor(s) is/are most significant? (ADA, 585-592)

6. What are triglycerides? What causes blood triglycerides to become elevated? What are some ways to reduce triglycerides? (ADA, 585-592)

7. What is high blood pressure (also known as hypertension)? What are some of the health risks associated with high blood pressure? (ADA, 593)

8. What are risk factors for developing high blood pressure? (ADA, 593-595)

9. As a general guideline, what nutrient may be responsible for increasing blood pressure in some hypertensive individuals? How much of this nutrient should your diet be limited to in order to serve as a precaution against high blood pressure? (ADA, 594)

10. There are some nutrients that may help promote optimal blood pressure if they are consumed in adequate amounts. What are they? (ADA, 596)

11. How can a person lower their risk for developing high blood pressure? (ADA 596-597)
C. Cancer

1. What is cancer? What are some of the known risk factors? (ADA, 598)

2. Discuss the role antioxidants play in combating free radicals/oxidation. (ADA, 599)

3. What are phytonutrients/phytochemicals? In what foods would you find the following phytochemicals and how might they be beneficial to our health: beta carotene, lutein, lycopene, anthocyanins, flavanols, soy protein, and phytoestrogens. (ADA 154-157)

D. Osteoporosis

1. What is osteoporosis? How is it diagnosed? (ADA, 615,618)

2. What are the dietary and non-dietary risk factors associated with osteoporosis (ADA, 616-617)

3. Why are women more likely to develop osteoporosis? (ADA, 616)

4. How might caffeine, alcohol, and smoking impact calcium absorption? (ADA, 618)

5. What is considered to be the recommended adequate intake (AI) of calcium for different ages and stages of life? Be able to identify food sources of calcium. (ADA, 617-618)

6. What are the advantages of getting calcium from dairy foods rather than from fortified foods and/or supplements? What are the general guidelines for using calcium supplements? (ADA, 618 635-636)

E. Diabetes

1. What is diabetes? What are some of the symptoms? (ADA, 606)

2. Compare and contrast the different types of diabetes (Type 1, Type 2, Gestational). (ADA, 605-606)

3. What are risk factors for developing Type 2 diabetes? (ADA, 606)

4. What health problems can be associated with diabetes if the disease is not controlled? (ADA, 606)

5. Discuss the importance of meal timing, testing blood sugar levels, physical activity, and maintaining a healthy weight for good control of diabetes. (ADA, 607-615)

F. Feeding Infants and Children

1. What is colostrum? How does it protect a newborn from infections? (ADA, 421- 422)

2. What is the minimum age that infants are ready to begin eating solid foods? (ADA, 436-437)
3. What is the minimum age that iron-fortified cereals and strained fruits and vegetables should be introduced to infants? (ADA, 438)

4. Why should infants not be given solid foods from a bottle? (ADA, 437)

5. What type of cereal is least likely to cause an allergic reaction in infants? (ADA, 438)

6. Why should infants not be fed directly from a jar? (ADA, 444)

7. Why is it not safe to give infants honey before their first birthday? (ADA, 440)

8. Certain foods should not be given to children under 4 years of age because they can cause choking. What are those foods? (ADA 444-446)

G. Nutrition for Older Adults

1. There are several risk factors for poor nutrition that have been identified for older adults. Be able to list them. (Hint: DETERMINE) (ADA, 527)

2. Why are the following nutrients important for older adults: protein, calcium, vitamin D, iron, Vitamin A, folate, vitamin B6 and B12, and zinc? (ADA, 518-522)

3. How does an older person’s sense of thirst change? (ADA, 522-523)

H. Anemia

1. What is anemia, and what are some of its symptoms? (ADA, 623)

2. What nutrient deficiencies are linked to anemia? (ADA, 624-626)

3. Discuss possible reasons why young to middle-aged women need more iron in their diets than men. (ADA, 624)

4. Discuss good food sources of iron; compare heme vs. non-heme sources. (ADA, 150- 151)

5. What is a good way to improve absorption of iron from plant sources? (ADA, 151)

I. Vegetarian Diets

1. Compare lacto-ovo vegetarian, lacto-vegetarian, flexitarian, and vegan diets. (ADA, 254)

2. A vegan diet that is not well planned may be lacking in several nutrients. What are these nutrients? (ADA, 255-257)

3. Discuss the potential health benefits from eating a vegetarian diet. (ADA, 254- 255)
J. Dietary Supplements

1. Who might benefit from a vitamin and/or mineral supplement? (ADA, 632-633)

2. Define “ergogenic aid” and be able to give examples of supplements advertised as ergogenic aids. (ADA, 558-559)

3. How are dietary supplements regulated (think Dietary Supplement Health Education Act)? What are the roles of the FDA and FTC in relation to dietary supplements? (ADA, 641-643)

4. What information is required on the label of a dietary supplement? (ADA 652-654)

K. Food Allergies

1. What is the difference between a food allergy and a food intolerance? (ADA, 560)

2. Which foods are most likely to cause allergic reactions in adults and in children? How long do food allergies last? (ADA, 571, 579)

3. What are the three most common symptoms of a food allergy? (ADA, 571)

4. Understand gluten intolerance; what it is and how it is treated. (ADA, 564-567)

Category IV: Consumer Information

A. Food Label

1. What is meant by % daily value? (ADA, 279-280)

2. Health claims on food labels are regulated by which government agency? (ADA, 281)

3. Discuss the features of the Nutrition Facts panel. (FDA, New Nutrition Facts Label)

4. Why might % Daily Values not apply to everyone? (ADA, 279)

5. What determines the order of the ingredient list? (ADA, 280)

6. Why is it important to list ingredients on the food label? (ADA, 280-281)

7. How do structure/function claims differ from health claims on food labels? (ADA, 281-282)

8. Identify and discuss kosher and halal symbols, including the meaning of the symbol. (ADA, 284)

9. Discuss health warnings for food allergens and special conditions that might appear on the food label. (ADA, 282-283)

10. What are the differences between foods labeled “100% organic,” “organic,” and “made with organic ingredients”? (ADA, 283)
B. Food Standards

1. What does the USDA shield on a carton of eggs mean? (FOOD, 96-97)

2. How is the size of an egg determined? (FOOD, 96-97)

C. Miscellaneous

1. Discuss the purpose of the Universal Product Code. (ADA, 284)

2. When evaluating nutrition information on a web site, what are some things one should look for to make sure the web site is credible? (ADA, 664-667)

Category V. Kitchen and Food Safety

A. Food Safety at the Grocery Store

1. Know the difference between the following terms commonly found on food packages (ADA, 283):
   a. “sell-by” or “pull” date
   b. “use by” or “best if used by (before) date”
   c. “pack date”

2. After purchasing perishable foods at a grocery store, they should be stored within a certain amount of time to maintain safety. What is the recommended length of time? (ADA, 314)

B. Foodborne Illness

1. Which groups of individuals are most susceptible to a foodborne illness? What are some common symptoms of a foodborne illness? (ADA, 314-319)

2. What is the “Danger Zone?” How does temperature play a role in preventing foodborne illness? What does freezing do to bacteria? (ADA 316-317)

3. What do bacteria need to survive and multiply? (ADA, 316-317)

4. Be familiar with the following bacteria with respect to: (a) where they are found, (b) foods that are commonly associated with the bacteria, (c) how the illness is transmitted, (d) ways to prevent foodborne illnesses associated with the different bacteria: (ADA, 317-321)
   a. Salmonella
   b. Campylobacter jejuni
   c. Clostridium perfringens
   d. Staphylococcus aureus
   e. Listeria monocytogenes
   f. Clostridium botulinum
   g. Escherichia coli
   h. Vibrio vulnificus
   i. Yersinia enterocolitica
5. List common food safety mistakes or unsafe food handling practices. (ADA, 323-327)

6. Why should a consumer not roast meat at low oven temperatures (less than 325 degrees F) for long periods of time or even overnight? (ADA, 338)
7. To what temperature should leftovers be reheated? (ADA, 341)

8. Refrigerators should be kept within what recommended temperature range? (ADA, 328)

9. How should food that may be contaminated be handled? (Texas AgriLife Extension Service, B-5031, Safe Home Food Storage)

10. How might a person become infected with Hepatitis A? (ADA, 322)
11. How might someone contract trichinosis (Trichinella spiralis)? (ADA, 323)
12. How might a person become infected with the parasite toxoplasmosis? Know direct and indirect methods of exposure to this parasite. Who is at special risk? (ADA, 323)
13. Know/understand the situations for which a person should see a doctor due to a suspected foodborne illness. (ADA, 323)
14. Discuss what a consumer should do if his/her freezer stops. How do you know whether to refreeze or discard meat, poultry, vegetables, or cooked foods? (ADA, 333-335)

C. Keeping Your Kitchen Safe from a Foodborne Illness

1. Know the steps for proper hand washing. (ADA, 323-325)

2. Define cross contamination. Give an example of how this may occur. (ADA, 326-327)

3. Know the proper temperatures for storing food in the pantry, refrigerator, and freezer. (ADA, 327-333)

4. What types of dishes are not safe for use with food and why? (ADA, 328)

5. What is the best method for storing cooked foods so they are cooled rapidly? (ADA, 32; Texas AgriLife Extension Service B-5031 Safe Home Food Storage)

6. Where is the best place in the refrigerator to store raw meat, fish, poultry, and eggs and why? (ADA, 329)

7. What is “freezer burn” and how does it affect food? (ADA, 329)

8. Understand basic principles of safe food preparation and service. (ADA, 335-345)

9. Understand how to tell when an egg is properly cooked based on the method used. (ADA, 340-341)

10. When is it safe to refreeze a frozen food that has been partially thawed? (ADA, 335)

11. What are the four main principles of Fight Bac! (FOOD, 49)
12. Understand the guidelines for using a slow cooker to cook foods safely. (ADA, 337-338)

13. If a container is not labeled “microwave safe” how can you determine if it is safe to use in the microwave? (ADA, 341)

14. When cooking or reheating foods in the microwave, what is the purpose of “standing time”? (ADA, 341)

PART TWO: Utensils, Appliances, Cookware, Dish and Tableware

The photos shown in this packet are only one option of what an item may look like.

Other options are available.
Utensils

**Apple Corer** — This tool has a circular cutting edge that is forced down into the apple, allowing the apple to remain whole so it can then be easily sliced into sections for eating it out of hand or baking it whole with the outer skin. A tool used to extract the core from the apple without cutting the apple into sections and then individually cutting out each part of the core.

**Apple Slicer** — This professional-quality tool is pressed down over the apple to make eight uniform slices and remove the core.

**BBQ Spatula** — A utensil with long handle and flat bottom used to turn food while cooking.

**BBQ Tongs** — A utensil with long handles used to grip and turn food while cooking.

**Butter Knife** — A blunt knife used for cutting or spreading butter or other similar spreads.
Can Opener, Hand — A hand held device used for cutting cans open.

Chef’s Knife — A large knife with a wide blade, generally considered all-purpose knives that are used for cutting and dicing.

Chopsticks — A pair of slender sticks made especially of wood or ivory, held between the thumb and fingers and used as an eating utensil in Asian countries and in restaurants serving Asian food.

Chopper — A utensil used to cut food into smaller pieces.

Cookie Cutter — A shaped template with a sharp edge used to cut cookies or biscuits from rolled dough.

Decorative Slicer, Ripple — A utensil used to cut food that leaves a rippled edge.
**Decorative Slicer, Vee** — A utensil used to cut food that leaves a vee shape.

**Egg Separator** — A spoon shaped utensil, which has a hole in the bottom and is used to separate the white from the yolk of the egg.

**Egg Slicer** — A kitchen tool with a slatted, egg-shaped hollow on the bottom and a hinged top consisting of 10 fine steel wires. When the upper portion is brought down onto a hard-cooked egg sitting in the base, it cuts the egg into even slices.

**Flour Sifter** — A utensil used to incorporate air into flour and other dry ingredients.

**Egg Timer** — A small hourglass or clock-work timing device used to time the boiling of an egg, usually capable of timing intervals of three to five minutes.

**Garlic Press** — A press used for extracting juice from garlic.
**Grater** — A device with sharp edged holes against which something is rubbed to reduce it to shreds. Used to grate such things as cheese.

**Grill Brush** — A Brush with a long handle on the end that is used to clean a grill.

**Ice Cream Scoop** — A utensil used to remove ice cream from a carton or other container while forming the ice cream into a ball or oval shape. Ice-cream scoops come in several styles and sizes. Scoops come in many sizes, from tiny to large (about 1 to almost 3 inches in diameter).

**Gripper** — Small rubbery circle used for opening jars.

**Kitchen Fork** — A utensil used to lift or turn small food.

**Ladle** — special spoon with a large bowl for serving liquids.
**Liquid Measuring Cups** — Cups that come in clear plastic or glass with a 1/4” headspace so liquid can be carried without spilling and a pouring spout.

**Measuring Cups** — Cups that are used to measure dry and solid ingredients. They usually come in a set of four nesting cups: 1/4 cup, 1/3 cup, 1/2 cup, and 1 cup.

**Measuring Spoons** — Spoons that are used to measure small amounts of dry or liquid ingredients.

**Meat Tenderizer** — Hammer or paddle type utensil that comes in metal or wood and in a plethora of sizes and shapes. They can be large or small, have horizontal or vertical handles and be round-, square-, or mallet-shaped. Some have smooth surfaces while others are ridged.

**Melon Baller** — A small bowl-shaped tool used to cut round- or oval-shaped pieces of melon. The best melon ballers are rigidly constructed with wood or metal handles and sharp-edged, stainless steel bowls, which come in several sizes, from about 1/4” to 1”.

**Mixing Bowl** — A large bowl made of pottery, glass, metal, or plastic and are used to mix ingredients and come in a variety of sizes.
Nut Chopper — A device with blades that chops nuts into small.

Paring Knife — A knife that is smaller and shorter with fairly narrow blades, generally used for delicate jobs.

Pasta Measurer — A utensil used to measure pasta.

Pasta Server — A utensil used to serve pasta.

Pastry Blender — A mixing utensil used to cut flour and shortening when making pastry.

Pastry Brush — A small type brush used to spread butter or spices over food.

Pie/Cake Server — A utensil, which has a triangular, shaped bottom with handle and is used to serve cake or pie.
**Pizza Cutter** — A utensil consisting of a wheel with a sharpened blade used to cut pizza.

**Potato Masher** — A tool used to crush food, usually after cooking it, so that it forms a soft mass.

**Rolling Pin** — A cylinder that may or may not have small handles at either end used to roll dough for pie crusts, biscuits, or cookies.

**Rubber Spatula** — A flexible utensil used to remove food from spoons, side of bowls, and pans.

**Scraper** — A plastic utensil used to scrape food from bowls, etc.

**Serving Fork** — A large type fork used to serve food.
**Serving Spoon** — A large type spoon used to serve food.

**Slicing Knife** — A knife with long narrow flexible blades that may or may not be serrated.

**Slotted Spoon** — A spoon with a small holes or slots for draining.

**Soup Spoon** — A spoon with a rounded bowl for eating soup.

**Strainer** — A bowl type item with holes in it that is used to separate liquids from solid food.

**Tart Press** — Any type of press used to shape or mold pastry.
Thermometer, Candy - A candy thermometer, also known as a sugar thermometer, is a thermometer used to measure the temperature and therefore the stage of a cooking sugar solution.

Meat Thermometer - A thermometer used to measure the internal temperature of meat, especially roasts and steaks, and other cooked foods. The degree of "doneness" of meat correlates closely with the internal temperature, so that a thermometer reading indicates when it is cooked as desired.

Tongs - An instrument with two movable arms that are joined at one end, used for picking up and holding things.

Turner — is a kitchen utensil with a long handle and a broad flat edge, used for lifting and turning fried foods, biscuits or cookies.

Utility Knife — A knife that has a long and narrow blade that is generally used for chopping.
Vegetable Peeler — A utensil used to peel the skin from vegetables.

Can Opener, Electrical — An electrical device used for cutting cans open.

Wire Whisk — A utensil used to beat and blend ingredients or food, especially egg.

Coffee Urn — An electrical device used to make large amounts of coffee.

Appliances

Blender — An electrical kitchen appliance used for mixing foods or batter.

Crock Pot — An electrical cooker that maintains a relatively low temperature, used to cook foods over a long period of time.
**Food Processor** — An appliance consisting of a container in which food is cut, sliced, shredded, grated, blended, beaten or liquidized. Used to prepare foods.

**Microwave Oven** — An oven that uses low frequency radiation to cook food faster than conventional ovens.

**Hand Blender** — An electrical device used to mix small amounts of liquids.

**Ice Cream Maker** — An appliance used to make ice cream which may involve a paddle used to mix ingredients while melting ice provides low temperatures.

**Mixer, Countertop** — An electrical device that blends or mixes substances or ingredients, especially by mechanical agitation.

**Mixer, Hand** — A hand held device that blends or mixes substances or ingredients, especially by mechanical agitation.
**Skillet, Electric** - A skillet or frying pan that instead of being placed on the stove is heated by plugging it into an outlet. The best skillets provide an even heating surface, not always the case with stovetop cooking.

**Rice Cooker** — A self-contained electrical appliance used primarily for cooking rice.

**Sandwich/Panini Press** — An electrical skillet that cooks the sandwich on both sides at the same time.

**Tea Kettle** - A metal or plastic vessel with a lid, spout, and handle, used for boiling water.

**Toaster Oven** — An electrical appliance that can be used as either a toaster or an oven.

**Turkey Fryer** — An appliance used to deep fry turkeys or large birds.
Toaster — A mechanical device used to toast bread, especially by exposure to electrically heated wire coils.

Waffle Iron — An appliance having hinged indented plates that impress a grid pattern into waffle batter as it bakes.

Cookware

Asparagus Pot — A tall pot with a wire insert to hold asparagus upright while they steam.

Baking Pan — A pan with sides that vary in deepness and are used to bake such things as cakes.

Baking Sheet — A flat, shiny metal tray used for cooking such things as biscuits and cookies.

Broiler Pan — A metal tray used to hold food while broiling under a grill.
Colander — A bowl-shaped kitchen utensil with perforations for draining off liquids and rinsing food.

Double Boiler — A pair of cooking pots, one fitting on top of and partly inside the other. Food cooks gently in the upper pot while water simmers in lower pot.

Dutch Oven — An iron container with lid used for cooking stews or casseroles.

Frying Pan — A pan used for frying foods with a single long side handle, measured in inches and may have either straight or sloped sides.

Loaf Pan — A pan with high sides for baking loaves of bread or meat.

Muffin Tin — A tin consisting of holes in which batter is placed to make muffins.
Pastry Press — Any type of press used to shape or mold cookies.

Pie Plate — A plate used to serve pie.

Roaster Pan — A pan with deep sides used to cook roast.

Sauce Pan — A pan used to cook sauces on the stovetop with a long side handle and straight sides measured in quarts.

Sauce Pot — A short and wide pot with two handles and close fitting lid

Steamer Basket — Metal basket that inserts into a pan. Used for steaming vegetables.

Stockpot — A pot with two handles and are tall and narrow
**Pot holder** — A pad used to protect hands when working with hot pans.

**Trivet** — An object placed between a serving dish or bowl and a dining table, usually to protect the table from heat damage. A metal stand with short feet, used under a hot dish on a table.

**Wire Cooling Rack** — A rack used to hold hot foods such as cakes, breads, and cookies for cooling.

**Wok** — A deep frying pan with a round bowl to distribute heat evenly.

**Tube Pan** — A round pan with a hollow projection in the middle, used for baking or molding foods in the shape of a ring.
Dish and Tableware

**Bread Plate** — A small plate used to hold bread while eating

![Bread Plate](image)

**Cake Plate/Stand** — A small plate that is used to serve cake

![Cake Plate/Stand](image)

**Butter Dish** — A small dish with cover used to store and serve butter.

![Butter Dish](image)

**Carafe** — A glass or metal bottle, often with a flared lip, used for serving water or wine. A glass pot with a pouring spout used in making coffee.

![Carafe](image)

**Creamer and Sugar Set** — A set used to hold and serve creamer and sugar at the table

![Creamer and Sugar Set](image)

**Gravy Boat** — An elongated dish or pitcher for serving gravy

![Gravy Boat](image)

**Juice Glass** — A small glass used for juices

![Juice Glass](image)

**Meat Platter** — A large serving plate

![Meat Platter](image)
Napkin Ring — A circular band used to hold a particular person’s napkin.

Parfait/Sundae Cup — Fluted cup designed to serve sundaes and parfaits.

Pepper Mill — A utensil for grinding peppercorns

Punch Bowl — A large bowl for serving a beverage, such as punch

Saucer — A small shallow dish having a slight circular depression in the center for holding a cup

Tea Pot — A pot used for Tea
PART THREE: HERBS AND SPICES

Members should be familiar with how the actual herb or spice looks, smells and/or tastes. Real specimens may be used in lieu of pictures.

**Allspice** — A spice used especially in baking, made from the dried, nearly ripe berries of this plant.

**Anise** — An annual, aromatic Mediterranean herb (*Pimpinella anisum*) in the parsley family, cultivated for its seed like fruits and the oil obtained from them and used to flavor foods, liqueurs, and candies.

**Basil** — An Old World aromatic annual herb (*Ocimum basilicum*) in the mint family, cultivated for its leaves. Also called *sweet basil*. The leaves of this plant are used as a seasoning. Any of various plants in the genus *Ocimum*, native to warm regions, having aromatic foliage and terminal clusters of small, usually white flowers.

**Bay Leaves** — The leaf of the bay laurel or “true laurel”, *Laurus nobilis*, is a culinary herb often used to flavor soups, stews, and braises and pates in Mediterranean Cuisine.
Celery Seed— A seed of the celery plant used as seasoning.

Chili Powder — A seasoning consisting of ground chilies mixed with other spices, such as cumin and oregano.

Chives — A Eurasian bulbous herb (Allium schoenoprasum) in the lily family, having clusters of usually pink to rose-violet flowers and cultivated for its long, slender, hollow leaves. Often used in the plural. The leaves of this plant are used as a seasoning.

Cilantro — Parsley-like herb that is used as a seasoning or garnish, usually in Mexican dishes and salsas, sometimes referred to as Mexican parsley.

Cinnamon — The dried aromatic inner bark of certain tropical Asian trees in the genus *Cinnamomum*, especially *C. verum* and *C. loureirii*, often ground and used as a spice.

Cloves — The flower bud of this plant is used whole or ground as a spice. An evergreen tree (*Syzygium aromaticum*) native to the Moluccas and widely cultivated in warm regions for its aromatic dried flower buds.
**Cumin** — An annual Mediterranean herb (*Cuminum cyminum*) in the parsley family, having finely divided leaves and clusters of small white or pink flowers. The seed-like fruit of this plant is used for seasoning, as in curry and chili powders.

![Cumin](image)

**Dill** — An aromatic herb (*Anethum graveolens*) native to Eurasia, having finely dissected leaves and small yellow flowers clustered in umbels. The leaves or seeds of this plant are used as a seasoning.

![Dill](image)

**Garlic** — A strong-smelling pungent-tasting bulb, used as a flavoring in cooking and in herbal medicine.

![Garlic](image)

**Ginger** — A plant (*Zingiber officinale*) of tropical Southeast Asia having yellowish-green flowers and a pungent aromatic rhizome. The rhizome of this plant is often dried and powdered and used as a spice. Also called *gingerroot*.

![Ginger](image)

**Mace** — An aromatic spice made from the dried, waxy, scarlet or yellowish covering that partly encloses the kernel of the nutmeg.

![Mace](image)

**Mint Leaves** — Any plant with the aromatic family ‘menthe’. The leaves are used to make essential oil or for seasoning and flavoring.

![Mint Leaves](image)
**Mustard** — Any of various Eurasian plants of the genus *Brassica*, especially *B. nigra* and *B. juncea*, which are cultivated for their pungent seeds and edible leaves. A condiment made from the powdered seeds of certain of these plants.

**Nutmeg** — An evergreen tree (*Myristica fragrans*) native to the East Indies and cultivated for its spicy seeds. The hard, aromatic seed of this tree is used as a spice when grated or ground. A grayish to moderate brown.

**Oregano** — A perennial Eurasian herb (*Origanum vulgare*) of the mint family, having aromatic leaves. The leaves of this plant are used as a seasoning. Pungent leaves used as seasoning with meats and fowl and in stews and soups and omelets.

**Paprika** — A mild powdered seasoning made from sweet red peppers. A dark to deep or vivid reddish orange.

**Parsley** — A cultivated Eurasian herb (*Petroselinum crispum*) having flat or curled, alternately compound leaves. The leaves of this plant are used as a seasoning or garnish.

**Pepper, Black** — The small, dark, unripe fruit of the pepper plant (*Piper nigrum*), is used whole or ground as a pungent spice.
**Poppy Seed** — Any plant or species of the genus *Papaver*, herbs with showy polypetalous flowers and a milky juice. From one species (*Papaver somniferum*) opium is obtained, though all the species contain it to some extent; also, a flower of the plant.

**Sesame Seed** — Small oval seeds of the sesame plant.

**Rosemary** — An aromatic evergreen Mediterranean shrub (*Rosmarinus officinalis*) having light blue or pink flowers and grayish-green leaves that are used in cooking and perfumery. The leaves of this plant are used as a seasoning.

**Tarragon** — An aromatic Eurasian herb (*Artemisia dracunculus*) having linear to lance-shaped leaves and small, whitish-green flower heads arranged in loose, spreading panicles. The leaves of this plant are used as a seasoning.

**Sage** — Any of various plants of the genus *Salvia*, especially *S. officinalis*, having aromatic grayish-green, opposite leaves. Also called *ramona*. The leaves of this plant are used as a seasoning.

**Thyme** — Any of several aromatic Eurasian herbs or low shrubs of the genus *Thymus*, especially *T. vulgaris*, of southern Europe, having small, white to lilac flowers grouped in head like clusters. The leaves of this plant are used as a seasoning.
Turmeric — A widely cultivated tropical plant (Curcuma domestica) of India, having yellow flowers and an aromatic, somewhat fleshy rhizome. The powdered rhizome of this plant, used as a condiment and a yellow dye.

Pepper, White - White pepper is used to a great extent in recipes for appearance only, usually in white sauces where you might not want dark specks if black pepper was used. White pepper is milder in flavor than black pepper as well.