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Goodheart-Willcox Publisher Correlation of *The Culinary Professional* ©2017 to Precision Exams Culinary Management (347)		
STANDARD		**CORRELATING PAGES**
Standard 1 Students will identify knives and food service equipment function, proper use and care. (STEM – technology, engineering, math)		
1.1	Identify types of knives, understand their proper use and care, and demonstrate proper knife safety.	173-182, 187 (#13-17), 187 (#19-21)
1.1.1	Types of knives, including chef, boning, paring, serrated	175-176
1.1.2	Proper hold, sharpening, wash and storage	177-180, 181
1.2	Identify common small ware food preparation equipment, and how it is to be safely used and cleaned. (i.e. knives, mandoline, piping tools, parisian scoop, scales)	182-185
1.3	Identify common food preparation and service equipment and how it is to be safely used and cleaned (e.g., convection oven, conventional oven, commercial dishwasher/sanitizer, ice machine, stand mixer, deep fat fryer, proofer, steam table, hotel pans, sheet pans, chafing dishes)	122, 222, 227-229
1.4	Identify and demonstrate different knife cuts, including:	190-197
1.4.1	Batonnet—1/4 x 1/4 x 2-3 inch	193
1.4.2	Julienne—1/8 x 1/8 x 1-2 inch, fine julienne- 1/16 x 1/16 x 1-2 inch	193, 251
1.4.3	Brunoise—1/8 x 1/8 x 1/8 inch	194
1.4.4	Dice, small—1/4 x 1/4 x 1/4 inch; medium—1/2 x 1/2 x 1/2 inch; large—3/4 x 3/4 x 3/4 inch	250, 252, 255-256
1.4.5	Chiffonade—stack leaves, roll and slice into thin shreds	253
1.4.6	Diagonal—cut on a 45 degree angle	190-191
1.4.7	Rondelle—also called coin cut	192

1.4.8	Mince - to cut or chop into very small pieces	194
1.4.9	Chop - to cut into uniform size when shape is not important	190
1.5	Identify the purpose of mise en place.	249-250
Standard 2 Students will discuss the important of sanitation and food safety in the flow of food. Apply basic workplace safety and first-aid procedures. (STEM – science)		
2.1	Identify the steps in the flow of food, including purchasing, receiving, storage, preparation, cooking, holding (hot/cold), cooling, reheating, and serving.	114-118, 760-763
2.1.1	Explain the purpose of the Hazard Analysis Critical Control Point (HACCP) system (i.e., to ensure keeping food safe through a system of identifying and monitoring critical control points).	129-130
2.1.2	Discuss methods of purchasing, receiving, and storage.	48, 63, 154-158, 760-762
2.1.2.1	Purchase from an approved reputable vendor.	760
2.1.2.2	FIFO (first-in first-out) rule (i.e., the food that has been in the holding area the longest will be used first).	762 (Chef Speak)
2.1.2.3	Store food and cleaning supplies separately.	107-108, 761-762
2.1.3	Hot holding should be at 135° or higher for no more than 4 hours	115
2.1.4	Refrigerator and freezer temperatures (refrigerator: 41°F or lower; freezer: 0°F or lower).	115-117
2.1.5	Reheat foods to 165° for 15 seconds	117-118
2.1.6	Explain how to serve food to guest.	748-752
2.2	Identify standards of personal grooming and hygiene.	125-128
2.2.1	Establish and follow procedures to prevent human contamination (e.g., food handler permit requirements).	98-99
2.2.2	Identify business standards for personal hygiene.	125-128

2.2.3	Wash hands with soap and warm water (minimum 20 seconds) and dry with single-use paper towel.	126, 127
2.2.4	Wash hands after using the restroom, sneezing, coughing, or touching face or hair.	126, 127
2.2.5	Wash hands before and after handling raw meat, poultry, and eggs.	126, 127
2.2.6	Single-use gloves must be used for only one task (such as working with ready-to-eat food or with raw animal food), used for no other purpose, and discarded when damaged or soiled, or when interruptions occur in the operation.	126-127
2.2.7	Wear bandages and gloves or other protective barriers over any cuts or open sores.	126-127
2.2.8	Anyone preparing food must wear hair restraints such as hats, hair coverings or nets, beard restraints, and clothing to effectively keep their hair from contacting exposed food.	127-128
2.2.9	All food preparation workers must wear clean attire, this may include chef coats and/or aprons; bacteria from dirty attire could contaminate food.	128
2.2.10	Any activity involving eating, drinking or chewing gum needs to occur in a designated area away from food preparation areas.	128
2.2.11	When tasting food, use a clean spoon only once.	128
2.3	Identify proper sanitation techniques used with tools, equipment, and surfaces.	113-133
2.3.1	Discuss three-compartment sink dishwashing and the order used when washing and sanitizing dishes (i.e., rinse and scrape, wash, rinse, sanitize and air dry).	122, 124

2.3.2	Containers for storing and mixing food are stored upside down.	123
2.3.3	Differentiate between cross-contact and cross-contamination.	109, 118
2.3.3.1	Cross-contact happens when one food containing allergens comes in contact with a surface or food, thereby posing a hazard for persons having that allergy.	109
2.3.3.2	Cross-contamination is the human transfer of pathogens from one surface or food to another	118
2.4	Identify the factors contributing to food-borne contamination, illness, and prevention strategies.	98, 113-131
2.4.1	Discuss general concepts of food-borne illness.	98
2.4.1.1	Food-borne illness results from eating foods contaminated with pathogens.	99-106
2.4.1.2	General conditions for bacterial growth include food, acidity, time, temperature oxygen, moisture (FAT TOM).	99-104
2.4.1.3	Contaminated food does not always have an off odor or flavor, so it may look and smell normal.	380
2.4.2	Three types of food contamination hazards.	99-109
2.4.2.1	Physical - hair, glass, metal shards, fingernails.	108-109
2.4.2.2	Chemical - cleaning supplies and pesticides.	107-108
2.4.2.3	Biological - harmful micro-organisms (pathogens)	99-106
2.4.3	Identify the four types of pathogen contaminants	99-106
2.4.3.1	Bacteria - tiny single cell micro-organism including Salmonella and E-coli.	99-104
2.4.3.2	Viruses - simple organism responsible for majority of foodborne illness – Norovirus and Hepatitis A.	104-105

2.4.3.3	Parasites - organism that must live in or on a host to survive ie. Giardia	106
2.4.3.4	Fungi - spore producing organism including yeast and mold. Typically, visible on spoiled food.	105-106
2.4.4	Food-borne illness symptoms that exclude a worker from handling food include the following:	101, 128
2.4.4.1	Sore throat with fever	101
2.4.4.2	Jaundice	101
2.4.4.3	Diarrhea	101
2.4.4.4	Vomiting	101
2.4.4.5	Open and infected sores	126, 140
2.4.4.6	Food handlers need to be symptom-free for 24 hours before handling food.	128
2.4.5	Discuss prevention strategies.	98, 102, 105
2.4.5.1	A large majority of foodborne illness can be prevented by avoiding cross contamination.	118-119
2.4.5.2	When in doubt, throw it out. Do not taste or use. Don’t use bulging cans.	107 (Sanitation & Safety)
2.4.5.3	Frequently clean and sanitize work surfaces (i.e., counters).	120-125
2.4.5.4	Clean and sanitize cutting boards, dishes, tools, etc., after preparing each food item, or every four hours of continuous use.	120-121
2.4.5.5	All TCS foods need to be covered and stored in the refrigerator with a label including a use-by date.	99-100
2.4.5.6	Food should be stored in the refrigerator according to the final cooking temperature.	229-230
2.4.5.7	Place ready-to-eat (RTE) foods on top and animal products toward the bottom according to cooking temperature.	118, 306
2.4.5.8	Never place cooked food on a plate which has previously held raw meat, poultry or seafood without first cleaning and sanitizing the plate.	118

2.4.6	Food should not be in the Danger Zone (the temperature range of 41-135°F), for longer than 4 hours total from start of preparation.	102-103, 115, 117 (Sanitation & Safety)
2.4.7	Discuss the importance of cooking to proper temperatures internal food temps; be sure to use a clean and sanitized thermometer.	106, 115, 130 (Fig 8-14), 483
2.4.7.1	Seafood, pork, beef, veal, lamb—145°F	106, 115
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2.4.7.4	Reheat temp—165°F (for a minimum of 15 seconds)	117-118
2.4.8	Discuss the importance of cooling and reheating foods to the correct temperature for the correct amount of time using proper equipment.	115-117
2.4.8.1	Keep hot foods hot and cold foods cold. (Hold hot 135°F and above. Cold 41°F or lower.)	115-117
2.4.8.2	Thoroughly cool hot foods. Food needs to be cooled below 70°F within two hours and below 41°F within four more hours.	115-117
2.4.8.3	Methods include ice water baths, ice paddles, and dividing large amounts of leftovers in small, shallow, covered containers for quick cooling.	115-117
2.4.8.4	Store foods in the refrigerator and freezer so that the cool air can circulate to keep food safe. Don't cover shelves or overcrowd.	116-117
2.4.8.5	Bring sauces, soups etc. to a boil when reheating; heat other TCS leftovers to 165°F (for a minimum of 15 seconds).	117-118
2.4.9	Discuss how to safely thaw foods, including in the refrigerator, under cold running water, in the microwave, or as part of the cooking process.	114-115
2.4.9.1	Never defrost at room temperature.	115

2.4.9.2	If thawing food in the microwave, cook immediately.	115
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2.4.9.4	If thawing food in the microwave, cook immediately.	115
2.5	Students will identify safe work practices.	135-151
2.5.1	Identify common workplace/food service injuries/ accidents and their prevention.	137, 139-143
2.5.1.1	Burns/scalds	140-141
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2.5.2.1	Choking: treat with the Heimlich (abdominal thrust)	142-143
2.5.2.1.1	Do not interfere if the victim is coughing forcefully with a partial airway obstruction	142
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2.5.2.3	Treat sprains, strains and contusions with RICE (rest, ice, compression and elevation).	142
2.5.2.4	Cuts—for severe wounds, apply direct pressure.	139
2.5.2.5	Allergic reactions:	143

2.5.2.5.1	Causes are generally one of the main 8 allergens (i.e., fish, shellfish, soy, wheat, peanuts, tree nuts, dairy and eggs); customers must be made aware of any of these ingredients in food.	109, 143
2.5.2.5.2	Symptoms include itching, swelling, hives, respiratory difficulties, rash and headache.	143
2.5.2.6	For chemical accidents, see SDS (Safety Data Sheets) for treatment recommendations.	143
Standard 3 Students will apply math concepts as they apply cost control including purchasing, portion control, AP/EP, and menu costing. (STEM – math)		
3.1	Identify factors in controlling food costs.	763, 765
3.1.1	Monitor the purchasing, receiving, storage, and production as it pertains to spoilage, theft, preparation, waste, service/employee training, and forecasted sales.	760-763
3.2	Calculating food cost by unit and portion	763, 765-768
3.2.1	Unit cost	765 (Mix in Math)
3.2.2	Total price of item ÷ number of units = cost per unit	765 (Mix in Math)
3.2.3	Portion or serving cost	765
3.2.4	Total cost ÷ by the number of portions = cost per portion or serving	765
3.3	Identify concepts of purchasing food to control expenses	760
3.3.1	Purchasing prepared and processed food items increases product costs	154-156
3.3.2	Purchasing raw increases labor costs	154-156
3.3.3	As Purchased (AP) is the product before any trimming, cutting, or cooking.	765
3.3.4	Edible Portion (EP) is the product after it has to be trimmed or cut.	765
3.3.5	Percent Yield is the percentage of the remaining food after cutting, trimming, or cooking.	765

3.3.6	Edible Portion (EP) ÷ As Purchased (AP) = Percentage Yield	767 (Mix in Math)
3.3.7	Edible Portion (EP) ÷ Percentage Yield = As Purchased (AP)	767 (Mix in Math)
3.3.8	As Purchased (AP) × Percentage Yield = Edible Portion (EP)	767 (Mix in Math)
3.4	Calculating menu pricing	795-797
3.4.1	Food Cost Percentage: the percentage of sales an operation budgets to spend on food products.	768-769, 797
3.4.2	Example: If your food cost percentage is 30% of the menu price, the additional 70% covers profit and expenses such as labor, rent, utilities, equipment, and insurance.	768-769
3.4.3	Industry standard food cost percentage ranges 28-35%.	768-769
3.4.4	Cost Per Portion ÷ Food Cost Percentage = Menu Price	768-769
Standard 4 Students will apply nutritional guidelines to menu development. (STEM – science, math)		
4.1	Consider the nutritional needs of individuals, including the following:	11
4.1.1	Food guidance systems (i.e., MyPlate, U.S. Dietary Guidelines)	781-783
4.1.2	Food allergies and intolerances	788-789
4.1.2.1	Common food allergens: eggs, milk, nuts, soy, wheat, and seafood	109
4.1.2.2	Food allergies produce histamine when a particular food is eaten.	109
4.1.2.3	Intolerances is the bodies inability to process or breakdown.	788
4.1.3	Nutritional considerations:	773-781
4.1.3.1	Carbohydrates: 50-60% of calories (4 cal. per gram), Fiber	775-776
4.1.3.2	Protein: 15-20% of calories (4 cal. per gram)	774-775
4.1.3.3	Lipids/fats: no more than 30% of calories (9 cal. per gram) text	776-778
4.2	Explore menus, different menu types, keys in menu planning and pricing.	793-799
4.2.1	Types of menus	793-795
4.2.1.1	Static, fixed	793

4.2.1.1.1	Still or unchanging	793
4.2.1.2	Cycle	795
4.2.1.2.1	Non-commercial segment	795
4.2.1.3	Market	795
4.2.1.3.1	Food available in the market	795
4.2.1.4	Examples of menus from all categories	793-795
4.2.1.4.1	Table d' hote/Prix Fixe—Complete meal at one price	795-796
4.2.1.4.1.1	banquet, buffet	795
4.2.1.4.2	A la Carte—All items priced and ordered separately	796
4.2.1.4.3	California—All items offered all day	796
4.2.2	Building a menu:	796-798
4.2.2.1	Basic menu layout and organization	798
4.2.2.2	Food descriptions and photos	798
4.2.2.3	Themes, colors and fonts	798
4.2.2.4	Menu planning:	796-797
4.2.2.4.1	Consider target market	796
4.2.2.4.2	Analyze competition	796
4.2.2.4.3	Create a theme	796
4.2.2.4.4	Current trends	796
4.2.2.4.5	Nutritional content	796
4.2.2.4.6	Variety and balance	796
4.2.2.4.7	Pricing	796-797
4.2.2.4.8	Food availability	796
4.2.2.4.9	Staff skills level	796
4.2.2.4.10	Labor cost	796
4.2.3	Menu Pricing	796-797
4.2.3.1	Covers cost of food, labor, additional operating costs, perceived value, revenue, and competition.	796-797
4.2.3.2	Pricing psychology - odd cent, pricing by the ounce	796-797
Standard 5 Students will be able to define marketing and identify the applications of marketing principles in the food industry. (STEM – engineering)		
5.1	Define Marketing.	24 (Industry Insights), 71

5.1.1	Marketing: The action or business of promoting and selling products or services.	24 (Industry Insights), 71
5.2	Application of principles used to market.	24 (Industry Insights), 71
5.2.1	Marketing principles and processes:	24 (Industry Insights), 71
5.2.1.1	Market environment and target market	9, 24 (Industry Insights)
5.2.1.1.1	Location	9, 24 (Industry Insights)
5.2.1.1.2	Population	9, 24 (Industry Insights)
5.2.1.1.3	Demographics	9, 24 (Industry Insights)
5.2.1.2	Marketing strategies:	24 (Industry Insights)
5.2.1.2.1	Public relations	24 (Industry Insights), 63
5.2.1.2.1.1	Promotions, Advertising, Direct Marketing	24 (Industry Insights)
5.2.1.2.1.1.1	websites, social media and email	24 (Industry Insights), 741
5.2.1.2.1.1.2	rewards or loyalty programs	24 (Industry Insights)
5.2.1.2.1.1.3	community outreach	24 (Industry Insights)
5.2.1.3	Trends	7-9
5.2.1.3.1	Food trucks	9
5.2.1.3.2	Farm to table, source local ingredients	163 (Industry Insights), 805
Standard 6 Students will demonstrate knowledge of various breakfast foods including eggs, meats, dairy and breakfast breads. (STEM – science)		
6.1	Discuss the selection and preparation of eggs.	600-603
6.1.1	There are several characteristics to consider when purchasing eggs.	600-603
6.1.2	Grade or quality, this decreases with age.	603
6.1.2.1	Grades: AA, A, B	603
6.1.3	Size (is determined by weight per dozen)	603
6.1.3.1	Largest to smallest; Jumbo, Extra Large, Large, Medium, Small and Peewee.	603
6.1.3.2	Standard recipes use large eggs (approx. 2 oz. per egg) and that is the size that should be used unless otherwise stated.	603

6.1.4	Purchase form	601-603
6.1.4.1	fresh- sold still in shell, or pooled (in a container or bag)	602-603
6.1.4.2	frozen- High quality fresh, whole eggs that are pasteurized and frozen. For use in scrambled eggs, or other dishes that call for beaten eggs.	602
6.1.4.3	dried- mixed with water before use, suitable mostly for baked goods and commercial use	602
6.1.5	Color- Shell color is determined by the type of chicken that lays it. It is not an indicator of taste or nutrition.	602
6.1.6	Eggs can be prepared many ways.	607-613
6.1.6.1	Fried/sautéed- over low-medium heat	612-613
6.1.6.1.1	Sunny-side up: yolk is unbroken, egg is not flipped during cooking, the white is firm, yolk is runny	613
6.1.6.1.2	Basted: a type of sunny side up in which the white is cooked by spooning hot butter over the egg while frying, or adding a little water to the pan/grill and covering the egg to steam it.	613
6.1.6.1.3	Over-easy: egg is turned over while cooking, allowing the white to cook, while keeping the yolk runny	613
6.1.6.1.4	Over-medium: similar to over easy but cooked a little longer resulting in a slightly cooked and thickened yolk	613
6.1.6.1.5	Over-hard: Egg is flipped while cooking and the egg is cooked through so the white and yolk are both firm	613
6.1.6.1.6	Scrambled: made with whole or egg whites, that are broken and whisk until well blended with milk or cream if desired, cooked over low/medium heat while gently stirring, remove from heat while still slightly creamy	610
6.1.6.2	Omelets begin with scrambled eggs and filled with vegetables, cheese and/or meats folded- common	610-612

6.1.6.2.1	French: cooked while pan is constantly shaken to keep them light and fluffy, tightly rolled onto a plate and then cut so the filling can be spooned in	609
6.1.6.2.2	Frittata: open faced omelets of Spanish origin, the hearty fillings are mixed directly into the eggs, cooked on the stove and transferred to oven or broiler to finish cooking through, cut into wedges for serving.	611-612
6.1.6.3	Poached: best to use very fresh eggs that will hold their shape, eggs are removed from the shell and cooked in gently simmering water, white should be firm and yolks runny	609
6.1.6.4	Simmered in shell, to the desired doneness, cool under running water to stop carry over cooking and prevent over cooking which can cause rubbery and discolored eggs	607-608
6.1.6.4.1	Soft: simmered 4-6 minutes	607-608
6.1.6.4.2	Hard: simmered for 12-15 minutes	607-608
6.1.6.5	Baked	607-608
6.1.6.5.1	Shirred: Usually prepared in individual ramekins which can be lined or partially filled and often topped with grated cheese, fresh herbs or a sauce. The whites should be set while the yolks are soft and creamy.	607-608
6.1.6.5.2	Quiche: an egg custard and fillings baked in a crust	694
6.2	Identify meats commonly used for breakfast and their preparation.	613-615
6.2.1	Breakfast meat tends to be spicy or highly flavored	613
6.2.1.1	Bacon: brined and cold smoked pork belly	613-614
6.2.1.2	Ham: Traditionally it is made from a hog's hind leg, but now is often made from another primal cuts. The meat goes through a curing or brining process.	614

6.2.1.3	Sausage: Ground meat, often pork but any other meat and sometimes vegetables can and are used, it is seasoned and usually stuffed in a casing. The casing helps to hold in moisture. Fresh sausage is the kind most often used for breakfast.	614-615
6.2.1.4	Canadian style bacon: boneless pork loin, that has been trimmed, brined and smoked	614
6.2.1.5	Others meats that are commonly served for breakfast	613-615
6.2.1.6	smoked or cured fish	361, 363
6.2.1.7	small sirloin steak	494, 496
6.2.1.8	pork chop	578
6.2.1.9	chopped corned beef, or roast turkey or beef used for making hash	363, 577
6.2.2	The best way to cook breakfast meat is on a low temperature to avoid over cooking.	613-615
6.2.3	Most breakfast meats can be	613-615
6.3	Discuss the use and preparation of milk/dairy products used in breakfast foods.	615
6.3.1	Milk is a popular beverage and it is an important ingredient in many recipes.	591-593
6.3.1.1	Pasteurization: the process of heating milk to destroy pathogens.	592
6.3.1.2	Homogenization: the process in which the fat particles in milk are reduced in size and dispersed throughout the liquid	592
6.3.1.3	Fresh milk is labeled and sold by fat content; skim, 1%, 2% and whole (4%)	591-592
6.3.1.4	Cream is added to many breakfast beverages, cereal and other dished. Cream is also labeled and sold by fat content	593
6.3.1.4.1	Half and half= 10-18% fat	593
6.3.1.4.2	Light cream= 18-30% fat	593
6.3.1.4.3	Regular whipping cream= 30-36% fat	593
6.3.1.4.4	Heavy cream: has at least 36% fat	593

6.3.1.5	Cultured dairy is made by adding specific bacterial cultures to fluid dairy products. The bacteria convert the milk sugar to lactic acid. The acid retards growth of undesirable microorganisms. The lactic acid gives these product tang, body and unique flavors.	594-595
6.3.1.5.1	Buttermilk	595
6.3.1.5.2	Sour cream	595
6.3.1.5.3	Creme fraiche	595
6.3.1.5.4	Yogurt	595
6.3.1.6	Butter is produced by agitating cream. Regular composition is 80% fat, 16% water, 2-4% solids (protein, lactose etc.)	594-595
6.3.1.6.1	Sweet: no salt added	594-595
6.3.1.6.2	Salted: 1.7% the addition of salt increases the amount of time it can be stored and enhances flavor	594-595
6.3.1.6.3	European: 80-86% fat, no salt added, usually made from cultured cream	594-595
6.3.1.6.4	Whipped: increased volume and spreadability, does go rancid faster than other butter	594-595
6.3.1.6.5	Clarified: water and solids removed, to increase the smoking point	594-595
6.3.1.7	Cheese	595-600
6.3.1.7.1	Fresh/unripened: cream cheese, marscarpone, mozzarella, queso oaxaca, ricotta	598
6.3.1.7.2	Soft: brie boursin, camembert, taleggio	598
6.3.1.7.3	Semi-soft: cabrales, fontina, gorgonzola, gouda, havarti, jack, provolone	598-599
6.3.1.7.4	Firm: cheddar, emmenthaler, gruyere, jarlsberg, manchego	599
6.3.1.7.5	Hard: asiago, parmesan, romano	599
6.3.1.8	Processed cheese: American, cheese spread, canned cheese	600
6.4	Identify common breakfast breads, and cereals and their use.	615-617

6.4.1	Breads	615-616
6.4.1.1	Ready-made breads: many breads that are commonly served for breakfast are made ahead of time either on site or off. These include: bagels, scones, donuts muffins, croissants, English muffins.	658-661
6.4.1.2	Made to order- a few bread product are usually made on site when ordered. Made to order breads include: pancakes, French toast, and waffles	616
6.4.2	Cereals	617
6.4.2.1	Hot cereals: generally made on site in a large batch. Hot cereals are served with milk or cream, dried fruit such as raisins, fresh fruit and/or nuts	617
6.4.2.1.1	Granular: grits or farina	617
6.4.2.1.2	Whole, cracked or flaked: oatmeal and cracked wheat are most common	617
6.4.2.2	Cold cereals: Purchased ready to eat. Can be served with milk or cream, sugar and fresh fruit.	459
Standard 7 Students will identify characteristics of produce including fruits, vegetables and their applications in garde manger and garnishes. (STEM – science)		
7.1	Identify characteristics of produce (fruits and vegetables), appropriate selection of, storage and preparation methods.	319-320, 439
7.1.1	Identify how to select quality produce.	319-320, 439
7.1.1.1	Produce can be purchased in a variety of forms.	319-320, 439
7.1.1.2	Fresh, canned, frozen, dried, preserved	319-320, 439
7.1.1.3	Some fresh produce is purchased cleaned, peeled or cut.	319-320, 439
7.1.1.3.1	These will generally cost more, and may have less flavor as result of the processing.	319-320, 439
7.1.1.4	The form in which purchase fruit is determined using several factors	319-320

	including, cost, quality, storage and most important, use.	
7.1.1.5	Fresh produce in season will be generally of a higher quality and lower cost.	319-320, 439
7.1.1.5.1	Produce that is locally out of season can be shipped from parts of the world where they are in season, but you will generally pay more for them and sacrifice flavor or quality.	319-320, 439
7.1.1.6	Fresh fruits can be graded on a voluntary basis:	319-320
7.1.1.6.1	U.S. Fancy—premium quality	319-320
7.1.1.6.2	U.S. No. 1—Good, average quality	319-320
7.1.1.6.3	U.S. No. 2—Medium quality; represents most produce	319-320
7.1.1.6.4	U.S. No. 3—Lowest quality	319-320
7.1.1.6.5	Most food service operations purchase U.S. Fancy grade; lesser grades are typically made into jams and jellies. Fresh vegetables are also voluntarily graded based on appearance, quality and condition of vegetables when they arrive on the market.	319-320
7.1.1.6.6	Onions, potatoes and carrots are graded on an alphabetical system, with Grade A being the best.	439
7.1.2	Describe proper storage of produce	323, 458, 761-762
7.1.2.1	The temperature for storing produce varies.	323, 458, 761-762
7.1.2.1.1	To finish ripening fruit store at room temperature.	337 (Science & Technology)
7.1.2.1.2	Fruits that are already ripe can be chilled to slow ripening.	323, 327
7.1.2.1.3	Starchy vegetables such as potatoes, winter squash and vegetables in the onion family, are best stored at 60-70°F. in a dry location. If they are stored in a refrigerator they will lose flavor and texture.	458
7.1.2.2	Most produce will last about a week if stored properly, some longer and	319, 458

	some shorter depending on the produce.	
7.1.2.2.1	For food service you should plan keep your fresh produce in inventory no longer than a week.	323, 458, 761-762
7.1.2.3	All produce needs to be washed before use.	343-344
7.1.2.3.1	Some produce can be washed before storing, but they should be dried and stored.	343-344
7.1.2.3.2	Some herbs are stored with their stems in water and can keep for an extended period of time this way.	265, 272
7.1.2.3.3	Some produce such as berries and mushrooms should not be washed until just before using.	329, 437, 439
7.1.2.4	For a chart of what to store where, and more tips on storage see the following reference: http://ucce.ucdavis.edu/files/datastore/234-1920.pdf.	323, 458, 761-762
7.1.3	Define and explain how to prevent enzymatic browning.	349
7.1.3.1	Enzymatic browning is the process of food, mainly produce, turning brown from exposure to oxygen and/or cell damage.	349
7.1.3.1.1	Foods prone to enzymatic browning include apples, potatoes, bananas, avocadoes, peaches, and pears.	349
7.1.3.2	A variety of methods can be used to prevent it.	349
7.1.3.2.1	Submerged in water.	349
7.1.3.2.2	Lemon juice and other acids lower the pH.	349
7.1.3.2.3	Blanching or other forms of cooking denature the enzymes.	349
7.1.3.2.4	Lower temperatures can slow the rate of reactions.	349
7.1.4	Discuss various cooking techniques and their effect on nutrient preservation/loss.	445-446
7.1.4.1	Dry heat tends to preserve nutrients and flavors	288-291

7.1.4.1.1	Dry heat cooking methods include: grilling/broiling, roasting/baking, deep frying (this adds more calories, making food less nutrient dense), sautéing	288-291
7.1.4.2	Moist heat can result in significant nutrient loss.	291-293
7.1.4.2.1	To help prevent nutrient loss, cook for a minimum about of time and use as little water as possible.	291-293
7.1.4.2.2	Moist heat cooking methods include: blanching/par boiling, steaming, simmering, braising, boiling	291-293
7.2	Students will identify terminology, types and preparation methods of salads and dressings.	299-315
7.2.1	Identify the basic types/uses of salads:	300-302
7.2.1.1	Appetizer: Served before the meal, this is designed to whet the appetite.	300-302
7.2.1.2	Accompaniment: Served with and complements the main dish	300-302
7.2.1.3	Main dish: This should have a variety of nutrients.	300-302
7.2.1.4	Separate-course/intermezzo: A light salad served after the main course to refresh the palate.	300-302
7.2.1.5	Dessert: A salad served at the end of the meal.	354
7.2.2	Discuss salad preparation	307-308, 309
7.2.2.1	If possible, purchase greens daily, selecting ones that are fresh and undamaged.	302-306
7.2.2.2	Salad greens should be submerged and rinsed several times in cold water.	307-308, 309
7.2.2.3	Dry the greens thoroughly by spinning or patting with paper towels.	307-308, 309
7.2.2.4	Match type of dressing with salad ingredients, e.g., heavier dressings with more substantial ingredients.	308, 310-311
7.2.2.5	Dress greens just before serving.	308, 310-311

7.2.2.6	Starch salads, such as pasta, potato and rice, should be dressed and refrigerated to allow the flavors to blend and develop.	302
7.2.3	Identify terminology, types and preparation methods of dressings	308, 310-314
7.2.3.1	Types of dressing:	308, 310-311
7.2.3.1.1	Vinaigrette is made with oil and vinegar, usually in a 3:1 ratio.	308
7.2.3.1.1.1	Vinaigrette quickly separates. That is why it is necessary to shake oil-and-vinegar dressings before using them.	308
7.2.3.1.2	Mayonnaise based dressing uses mayonnaise and ingredients to add flavor.	308, 310-311
7.2.3.1.2.1	Mayonnaise is a thick, creamy dressing that is a permanent emulsion of oil, vinegar or lemon juice, egg yolk and seasonings.	308, 310-311
7.2.3.1.2.2	An emulsifier is a substance that keeps the oil and vinegar blended.	311
7.2.3.1.2.3	Egg yolk and/or mustard are effective emulsifiers.	311
7.2.3.1.3	Cooked dressings are usually thickened with a starch, such as flour or cornstarch.	388-389
7.2.3.1.3.1	Examples are some types of coleslaw dressings, and potato salad dressings. A sweet version is used for frog's-eye salad.	388-389
7.3	Students will identify garnishes and explore various uses of garnishes.	349-352, 365-366, 409-410, 628-631
7.3.1	Define garnishing and purpose	628
7.3.1.1	A garnish is a decorative piece of an edible ingredient used as a finishing touch to a dish or drink.	628
7.3.2	Garnishing techniques	628-631
7.3.2.1	Edible	628-631
7.3.2.2	Variety and contrast - different in color, size, texture and shape.	628-631
7.3.2.3	Enhance the appearance, texture, and flavor of food, not overpower.	628-631
7.3.2.4	Make the food appear appetizing	628-631

7.3.2.5	Planned as part of the plating process	628-631
7.3.2.6	Proportionate to the size of food being served	628-631
Standard 8 Students will discuss and participate in baker food production, including concepts in chemistry, math and technology. (STEM – science, technology, math)		
8.1	Identify the function of each ingredient used in bakery products.	638-647
8.1.1	Flour	638, 639 (Fig 40-1)
8.1.1.1	Identify types, including non-wheat	639 (Fig 40-1)
8.1.1.1.1	Bread, all purpose, pastry (these each have different amounts of gluten); whole wheat is the whole kernel fine or coarsely ground.	639 (Fig 40-1)
8.1.1.1.2	Non-wheat, usually made to be gluten free. These come from other starchy plants, such as corn, barley, oats, potatoes, beans, and rice. Often combined with each other to achieve a good protein and starch level.	639 (Fig 40-1)
8.1.1.2	Flour provides structure.	638
8.1.2	Sugar	638, 640
8.1.2.1	Includes syrups (honey, molasses, corn, maple), sugars (brown, turbinado/raw, coarse/sanding, granulated, super fine/bakers/caster, confectioners/powdered), and fruit juice.	640 (Fig 40-2)
8.1.2.2	Sugar provides flavor, color/browning, food for yeast; helps to retain moisture for longer shelf life, tenderizer, and a stabilizer for egg whites.	638
8.1.3	Fats	640
8.1.3.1	Types:	640
8.1.3.1.1	Shortening (made from vegetable oil that is hydrogenated to make them solid and less likely to become rancid), good for frying, making cakes, pies and cookies.	640
8.1.3.1.2	Oil (extracted from plants and usually liquid at room temperature), blends easily in a mixture.	640

8.1.3.1.3	Butter (made from cream), butter has a distinct flavor. It can be purchased salted or unsalted. Only 80% fat, so it produces a less tender product than shortening.	640
8.1.3.1.4	Margarine (made from hydrogenated vegetable oil with color, flavor and water added). Less likely to spoil than butter. Lower cost than butter. Make sure to use one with at least 50% fat; usually the high the better.	640
8.1.4	Leavening	640-641
8.1.4.1	Yeast (organic): microscopic fungus eats carbohydrates and produced carbon dioxide.	641
8.1.4.1.1	Compressed/cake/fresh: often used in bake shops, it needs to be hydrated in warm water before adding other ingredients. It has a short shelf life making less useful for home cooks.	641
8.1.4.1.2	Active dry: granules of dormant/asleep yeast, activate in warm water. Stores well for an extended time. Best kept in freezer.	641
8.1.4.1.3	Instant/rapid rise: leavening action happens very quickly. Should be added to dry ingredients, then have warm water added to activate. Last at least one year when frozen.	641
8.1.4.1.4	Starter: a mixture of flour, yeast, lactobacilli, sugar and liquid. It gives bread a unique, mildly sour taste as in sourdough bread. A portion of the starter is used to leaven and the remainder is refreshed and can be used indefinitely in the future.	641
8.1.4.2	Chemical:	641
8.1.4.2.1	Baking soda/sodium bicarbonate: needs an acid such as buttermilk, sour cream, yogurt, fruits, syrups, and chocolate to make a chemical reaction that produces carbon dioxide.	641

8.1.4.2.2	Baking powder: made of baking soda, a dry acid such as cream of tartar, and a moisture absorber such as corn starch. When mixed with a liquid the ingredients combine to produce carbon dioxide. Most are double acting, which cause more rising when baked.	641
8.1.4.3	Physical	640-641, 714-717
8.1.4.3.1	Eggs (air is introduced by creaming or whisking and is trapped in the protein then it expands when it gets hot)	714-717
8.1.4.3.2	Steam (during baking water evaporates to steam and expands)	640-641
8.1.4.4	Leavening agents are what make baked goods rise and have a light tender texture and good volume.	640-641
8.1.5	Salt: gives flavor to food and brings out the flavor of the other ingredients. Also acts on gluten to soften the texture, and can slow down or control the growth of yeast.	263-264
8.1.6	Eggs	661-663, 669, 700, 711-718
8.1.6.1	In baked goods they can have several different functions.	661-663, 669, 700, 711-718
8.1.6.1.1	Structure: The protein in eggs contributes to the structure much like the gluten, which is also a protein.	661-663, 669, 700, 711-718
8.1.6.1.2	Emulsification: Helps to blend ingredients smoothly.	661-663, 669, 700, 711-718
8.1.6.1.3	Leavening: Air is trapped in the protein, which expands when heated.	661-663, 669, 700, 711-718
8.1.6.1.4	Flavor: Adds distinct flavor, especially when used in large amounts, such as in pate' choux and challah bread.	661-663, 669, 700, 711-718
8.1.6.1.5	Color: Adds a rich yellow color, and adds color to crusts during the browning process.	661-663, 669, 700, 711-718
8.1.6.2	Eggs can be purchased in several different forms.	601-603
8.1.6.2.1	Shell eggs: Eggs still in their shells. Usually sold in flats that hold 30 eggs	601-603

	and in pkgs of 2 or more flats. If stored properly at 41°F or below, they will last up to four weeks beyond the packing date.	
8.1.6.2.2	Egg products: Eggs that have been removed from the shell and pasteurized. Popular in the bake shop because of convenience.	601-603
8.1.7	Liquids	657-661, 668-669, 677, 689, 693, 700
8.1.7.1	Water—most common, especially for breads	657-661, 677, 689, 700
8.1.7.2	Milk and cream	668-669, 689, 700
8.1.7.3	Also found in eggs, sugar syrups, fruits and juices, butter, and margarine	693, 700
8.1.7.4	Functions of liquids:	638, 640, 658, 677, 700
8.1.7.4.1	form the gluten structure	638, 658, 700
8.1.7.4.2	activate leavening agents	658, 677, 700
8.1.7.4.3	some give flavor, tenderize, add moisture, and help with browning	640
8.1.8	Flavorings	642, 643-647
8.1.8.1	Extracts—liquid flavorings	646-647
8.1.8.2	Spices—bark, roots, flower buds, berries or seeds of aromatic plants.	268-271, 646
8.1.8.3	Nuts	643-645
8.1.9	Chocolate	642-643
8.1.9.1	Comes from cacao beans harvested from the pod, roasted, chopped into nibs, crushed into a paste called chocolate liquor, and possibly sweetened and flavored (called bittersweet chocolate), or pressed to separate into liquid called cocoa butter and solids that are ground into cocoa powder.	642
8.1.9.2	Types	642-643
8.1.9.2.1	Unsweetened—a mixture of chocolate liquor and cocoa butter	642-643
8.1.9.2.2	Semisweet—a mixture of chocolate liquor, cocoa butter and sugar	642-643

8.1.9.2.3	Milk chocolate—chocolate liquor, cocoa butter, sugar and powdered, sweetened condensed or liquid milk.	642-643
8.1.9.2.4	White—sweetened cocoa butter	642-643
8.1.9.2.5	Cocoa powder—ground cocoa solids	642-643
8.1.9.2.6	Dutch-processed cocoa powder—treated with alkali to reduce acidity	642-643
8.2	Identify the types, mixing, and storage methods of various bakery products, including yeast breads, pastries, cakes, icings, frosting, and fillings	682-683, 687-695, 699-707
8.2.1	Yeast breads	682-683
8.2.1.1	Identify the types of yeast breads:	682-683
8.2.1.1.1	Lean dough (very little or no sugar or fat)—dry, chewy crumb and hard crust.	682-683
8.2.1.1.2	Rich dough (addition of shortening, butter, sugars, eggs, milk or cream)—dough tends to be sticky and can be hard to work with. Moist, with a soft structure and golden yellow fine crumb	682-683
8.2.1.1.3	Rolled in dough—uses a medium or rich dough that has layers of fat folded and rolled in, resulting in a rich, flakey texture. Used to make croissants and Danish pastries.	682-683
8.2.1.2	Differentiate between mixing methods of yeast dough.	682-683
8.2.1.2.1	Straight-dough method—mix all the ingredients together in one step.	682-683
8.2.1.2.2	Modified straight dough method—commonly used when preparing rich dough. This method uses the following steps:	682-683
8.2.1.2.2.1	Dissolve the yeast in part of the water.	682-683
8.2.1.2.2.2	Combine the fat, sugar, salt, milk solids and flavorings.	682-683
8.2.1.2.2.3	Mix well, but not too fast.	682-683
8.2.1.2.2.4	Add eggs one at a time.	682-683
8.2.1.2.2.5	Add the rest of the liquid.	682-683

8.2.1.2.2.6	Add the flour and the dissolved yeast.	682-683
8.2.1.2.2.7	Mix until a smooth dough forms.	682-683
8.2.1.2.3	Sponge method—used for crusty bread and sweet doughs. This method allows the yeast to develop before it is mixed with the other ingredients, resulting in more intense flavor, a light airy texture, and a soft, moist and absorbent dough.	682-683
8.2.1.2.3.1	Combine 50% water with 50% flour.	682-683
8.2.1.2.3.2	Add the yeast. Sugar or malt may also be added to promote faster yeast growth.	682-683
8.2.1.2.3.3	Cover the sponge. Let it rise in a warm place until it doubles; may take 2-3 hours.	682-683
8.2.1.2.3.4	Combine the sponge with the remaining ingredients, either by hand or in a mixer.	682-683
8.2.1.3	Explain proper packaging and storing of yeast breads.	682-683
8.2.1.3.1	Let products cool completely.	682-683
8.2.1.3.2	Best if used within one day in a food service operation.	682-683
8.2.1.3.3	If keeping for more than one day, wrap tightly in airtight packaging, and freeze to prevent from going stale.	682-683
8.2.2	Pies and pastries	687-695
8.2.2.1	Identify the types of pie dough.	687-692
8.2.2.1.1	Basic pie dough is often called 3-2-1 dough, referring to the ratio of flour to fat and water.	689
8.2.2.1.2	Vegetable shortening is the ideal fat for pie dough because of its high melting point.	687-688
8.2.2.1.3	Do not overmix or over-handle pie crust or it will result in a tough texture.	691
8.2.2.1.4	Shells that are baked empty before filling are known as baking blind.	691, 694
8.2.2.2	Identify different pie fillings.	693
8.2.2.2.1	Cream: filled with flavored pastry cream, which is a corn starch-	693

	thickened egg custard or pudding. Examples are coconut, lemon meringue and chocolate silk.	
8.2.2.2.2	Custard: a filling made with eggs that firm the pie when baked. Examples are pumpkin and pecan.	693, 711-714
8.2.2.2.3	Chiffon: based on a cooked fruit or cream pie that is stabilized with gelatin. When the filing is cooled a meringue is folded into the filing and then placed in a blind-baked pie shell.	693
8.2.2.2.4	Fruit: these fillings can be purchased or made. The juice and or fruit is cooked and thickened, then cooled before placing it in the crust and finish as directed.	693
8.2.2.3	Discuss and apply proper storage methods of pies.	691
8.2.2.3.1	Baked fruit pies can be held at room temperature 1-2 days. Do not freeze.	691
8.2.2.3.2	Unbaked fruit pies or empty shells can be frozen for up to 2 months	693
8.2.2.3.3	Cream pies need to be refrigerated and used with 2-3 days. Do not freeze.	693
8.2.3	Cakes	699-707
8.2.3.1	Identify different types of cakes.	704, 705 (Chef Speak)
8.2.3.1.1	High-fat or shortened	704, 705 (Chef Speak)
8.2.3.1.1.1	Pound	704, 705 (Chef Speak)
8.2.3.1.1.2	High-ratio, used for layered cakes	704, 705 (Chef Speak)
8.2.3.1.2	Low-fat or foam	704, 705 (Chef Speak)
8.2.3.1.2.1	Sponge/foam	704, 705 (Chef Speak)
8.2.3.1.2.2	Angel food	704, 705 (Chef Speak)
8.2.3.1.2.3	Chiffon	704, 705 (Chef Speak)
8.2.3.2	Discuss the different mixing methods and know the terminology used when making cakes.	700-701
8.2.3.2.1	Creaming (for high-fat cakes)—Cream fat, sugar and salt, add the eggs and other liquids mixing to fully incorporate; add the sifted dry ingredients.	700

8.2.3.2.2	Blending/two-stage (for high-fat)—Blend the dry ingredients, add emulsified shortening and half the liquids, mix well, and scrape bowl; add the remaining liquid and blend well.	700
8.2.3.2.3	Sponge/foam (made with whipped whole eggs)—Fold in the dry ingredients into the whipped whole eggs, then fold in the melted cooled butter. Genoise is the most common example.	700
8.2.3.2.4	Angel food—Egg whites, liquid flavorings and part of the sugar are whipped to stiff peaks; remaining sugar and flour are sifted and then folded in. It is leavened only by the air trapped in the beaten egg whites. Cooled upside down.	705 (Chef Speak)
8.2.3.2.5	Chiffon—Egg yolks and part of the sugar are whipped, then the flour is added, egg whites and remaining sugar are whipped and folded in. Cooled upside down.	705 (Chef Speak)
8.2.3.3	Identify and practice the proper storage of cakes.	706-707
8.2.3.3.1	Wrapped air-tight or sealed in containers and stored in refrigerator until needed.	706-707
8.2.3.3.2	Can be frozen for up to one month.	706-707
8.2.4	Icings and frostings	705-707
8.2.4.1	Identify the different types of frosting/icings.	714-721
8.2.4.1.1	Buttercream	720-721
8.2.4.1.1.1	Simple—Creamed fats, typically butter or shortening or a combination, are creamed with confectioners' sugar, flavoring and a little milk.	720-721
8.2.4.1.1.2	French—Sugar and water are cooked to the softball stage, then drizzled into egg yolks and whipped until fluffy. While still warm it has butter and flavorings added.	720-721

8.2.4.1.1.3	Italian—Sugar and water are first cooked to the softball stage, then drizzled into egg whites before being whipped to a fluffy meringue then softened with butter and flavored.	720-721
8.2.4.1.1.4	German—Sugar, cornstarch, milk and egg yolks are cooked to make a custard/pastry cream. Once cooled the custard is slowly added to creamed butter and flavorings.	720-721
8.2.4.1.1.5	Swiss meringue—Egg whites and sugar are cooked over a double boiler. Once the sugar is dissolved and the mixture reaches 140 °F, its' whipped to a stiff meringue before adding softened butter and flavorings.	720-721
8.2.4.1.1.6	Cream cheese—Cream cheese and butter are creamed with confectioners' sugar, vanilla and a little milk.	720-721
8.2.4.1.1.7	Ermine buttercream (a.k.a. flour buttercream)—Flour, sugar and milk are cooked until they make a thick pudding like consistency. This is cooled and added to creamed butter and flavorings.	720-721
8.2.4.1.2	Foam/boiled—Sugar and water are cooked to the softball stage and then drizzled into flavored egg whites and whipped to a stiff meringue.	714-720
8.2.4.1.3	Fondant	706-707
8.2.4.1.3.1	Poured—A filling or coating for cakes, pastries, candies or sweets. Sugar and water are cooked to the softball stage and cooled slightly, then beaten to an opaque, creamy mass. This used in crème eggs and poured over petit fours.	706-707
8.2.4.1.3.2	Rolled—Confectioners' sugar combined with gelatin and glycerin or shortening, but it can also be made with marshmallows. It is rolled out like a pie crust and used to cover an iced cake.	706-707

8.2.4.1.4	Fudge—Sugar, cocoa powder and milk are cooked to hard boil, removed from heat and butter and flavor are added. The mixture is then beaten until thick and smooth and poured over cake.	726
8.2.4.1.5	Ganache—Cream is warmed and then poured over chopped or chipped chocolate pieces. The cream is allowed to sit and melt the chocolate and then mixed until smooth. This needs to be cooled before being used to fill or spread.	726
8.2.4.1.6	Glaze—A mixture of confectioners' sugar, flavor milk/cream and sometimes butter. Thin enough to pour over cakes or pastries. It usually dries as it sits.	694
8.2.4.1.7	Royal icing—Egg whites or meringue powder and water whipped with confectioners' sugar. It is great for decorating and dries hard.	706-707
8.2.4.2	Identify the three main functions of frosting/icings.	705-707
8.2.4.2.1	Creates a protective coating for baked goods	705-707
8.2.4.2.2	Contributes to flavor and richness	705-707
8.2.4.2.3	Improves appearance	705-707
8.2.4.3	Storage—Refrigerate until used.	705-707
Standard 9 Students will identify the characteristics of grains, potatoes and legumes and appropriate cooking methods. (STEM – science, math)		
9.1	Identify the characteristics and cooking methods used with rice.	462-463, 475-480
9.1.1	Types and storage	462-463
9.1.1.1	Long grain: basmati, jasmine, along with those labeled long grain	462-463
9.1.1.2	Medium grain: arborio and carnaroli (commonly used in risotto)	462-463
9.1.1.3	Short grain: ideal for sushi and desserts, this rice is also called sticky rice	462-463
9.1.1.4	The whole grain form of any length of rice is called brown rice. Rice	462-463

	commonly labeled as just brown rice is usually just a general variety of long grain.	
9.1.1.5	Converted: partially cooked with steam and dried.	462-463
9.1.1.5.1	During this process some of the surface starch is removed, resulting in a rice that does not stick together.	462-463
9.1.1.5.2	This rice is also fortified with nutrients by forcing them into the outer layer of the grain.	462-463
9.1.1.6	White rice can be stored for many years. Brown and other whole grain forms, because of the presence of the bran and germs, should be stored only 3-6 months and need to be kept cool or cold.	462-463
9.1.1.7	After cooking, rice is a TCS food and care should be taken due to the high protein content and neutral pH.	462-463
9.1.2	Cooking techniques and times	475-480
9.1.2.1	Rinsing until the water is clear is a good practice to help rice be fluffy and separate when cooked.	476-477
9.1.2.2	Cooking methods	475-480
9.1.2.2.1	Boiling: Rice is added to salted boiling water and simmered until tender. Then it is drained and allowed to sit for a few minutes before serving.	476-477
9.1.2.2.2	Steaming: Add grain to a measure amount of boiling liquid, cover and cook until the liquid is absorbed and the rice is tender. This is often done in a saucepan or a rice cooker.	477
9.1.2.2.3	Braising: Also known as rice pilaf. This methods include more ingredients, resulting in a more flavorful rice. First, aromatics such as onions are sweated in fat such as butter, then the rice is added and coated in the fat and aromatics. A measured amount of water or a flavored liquid such as stock or juice is then added and the rice is simmered until tender.	478-479

9.1.2.2.4	Risotto: This method cooks rice while stirring in warm, flavorful liquid a little at a time. The result is a creamy, flavorful, tender rice with a rich sauce thickened using the starch from the rice.	478-480
9.1.2.2.5	Baking: Rice and a measured amount of hot water are placed in a tightly covered container in the oven. This method takes a little longer, but results in an evenly cooked rice that does not boil over or require watching.	477
9.1.2.3	Generally, rice triples in size when cooked.	476
9.2	Identify the characteristic and cooking methods for pasta.	464, 466-469, 480-483
9.2.1	Basic ingredients	481
9.2.1.1	Flour (usually wheat, specifically semolina, a hard-grain wheat that is high I gluten).	481
9.2.1.2	Liquid—water and/or eggs and sometimes oil.	481
9.2.1.3	Types and uses	464, 466-469
9.2.1.3.1	The name of the pasta is determined by the shape.	464, 466-469
9.2.1.3.2	The shape of the pasta determines what sauce to use.	464, 466-469
9.2.1.3.2.1	For example, farfalle is good to use with medium to rich consistency sauce and have meat or vegetable added to it.	464, 466-469
9.2.1.3.3	Consideration should be taken when choosing the shape for the desired outcome.	464, 466-469
9.2.1.3.3.1	For example, spaghetti may not be the best choice to be used in pasta salad.	464, 466-469
9.2.2	Cooking pasta	481-483
9.2.2.1	Pasta is boiled, usually until it is al dente but, sometimes just partially cooked because it will be finished in a casserole or other dish that requires further cooking.	481-483

9.2.2.1.1	Cook to al dente (to the tooth), meaning tender with a little firmness I the center.	481-483
9.2.2.2	Use 1 gallon of water for every lb. of pasta. Salt liberally, about 2 Tbsp. for every gallon.	481-483
9.2.2.3	Pasta doubles in volume when cooked.	481-483
9.2.2.4	Because of the need to serve pasta as soon as it is cooked, the mise en place o all the other ingredients for the dish need to be done before cooking the pasta.	481-483
9.2.2.5	Pasta should not be rinsed after cooking unless using in a pasta salad, or another dish at a later time.	483 (technique)
9.3	Identify the various other grains or similar foods and their uses.	465
9.3.1	Quinoa: A grain that has been cultivated in the Andean regions of South America for 3-4 thousand years. It is high in protein and has all of the essential amino acids. It is cooked in the same way as rice and can be used in a variety of ways.	465
9.3.2	Amaranth: Similar to quinoa, but used as much for its leaves as its seeds. It is not known to contain all essential amino acids.	465
9.3.3	Millet: A major food source in arid and semi-arid regions of the world.	465
9.3.4	Barley, farro and spelt: Three grains that are types of wheat and can be used interchangeably. Usually soaked before cooking and often used in soups and salads.	465
9.3.5	Corn: Different from other grains because it can be eaten fresh as a vegetable. As a dried grain it can be used ground or whole.	461
9.3.5.1	When dried corn is ground it can be fine, medium or coarse. Choose the grind you want based on texture you want in the product you are making. Fine ground is generally used for	461

	breads and medium to course can be made into polenta (an Italian dish that is a porridge or mush and served creamy or set).	
9.3.5.2	Grits are similar to polenta	460
9.3.5.3	Polenta is usually yellow and grits are typically white. The white could be a result of using white corn or it could be ground from hominy.	461
9.3.5.4	Hominy are kernels, cooked in a mineral lime bath. This results in a swollen, white kernel that when dried and ground is able to hold together for use in baking and cooking	460
9.4	Identify the characteristics and cooking methods used with potatoes.	455-458, 473-475
9.4.1	Receiving, storage and handling	458
9.4.1.1	Select potatoes based on how they will be used	458
9.4.1.2	Quality potatoes are firm and heavy for their size	458
9.4.1.3	Store potatoes in a cool, dry, dark, well ventilated place – not the refrigerator.	458
9.4.1.4	Before use, scrub and rinse well.	458
9.4.1.5	After cutting potatoes, if you are not cooking or baking them right away cover with water to prevent browning.	458
9.4.2	Cooking techniques: potatoes are very versatile they may be cooked using almost any dry or moist heat method.	473-475
9.4.3	Categories of potatoes	455-457
9.4.3.1	Starchy: Idaho, russets and sweet potatoes are examples, they are high in starch and low in moisture making them fluffy when cooked.	455, 457
9.4.3.1.1	Good for boiling, baking and frying. They do not hold their shape well after cooking.	455, 457

9.4.3.2	Waxy: red bliss or new potatoes are examples, firm moist flesh holds its shape well after cooking.	457
9.4.3.2.1	Good for roasting, boiling casseroles and potato salad.	457
9.4.3.3	All-purpose: Yukon gold are a great example as well as purple Peruvians. They have a medium starch content and can be used for just about anything	457
9.5	Identify various types of legumes, quality characteristics, storage, and cooking.	433-436
9.5.1	Types of legumes	433-436
9.5.1.1	Beans: Lima, cannelini, black, pinto, kidney, soy, etc.	433-434
9.5.1.2	Lentils: Yellow, green and brown	434
9.5.1.3	Peanuts (raw or unroasted)	645
9.5.1.4	Split peas	434
9.5.2	When purchasing, look for smooth skins, uniform size and non-withered beans, or buy canned beans that have already been cooked.	433-436
9.5.3	Don’t purchase too many dry beans at once, as they do continue drying during storage. Older beans require longer cooking time and more water and tend to have a more mealy texture when cooked.	433-436
9.5.4	When cooking beans it is common to use two steps: soaking and simmering.	433-436
9.5.5	Avoid adding high acid ingredients such as tomatoes to the beans until after they are tender, as acid can interfere with the softening of the bean.	433-436
9.5.6	Refrigerate cooked beans for up to 3 days, and freeze them for up to 6 months.	433-436
Standard 10 Students will identify and select various types of poultry, meat and seafood and apply appropriate cooking techniques. (STEM – science)		

10.1	Identify poultry terminology and preparation.	504-505
10.1.1	Fabrication: the process of cutting or breaking down the meat/poultry into its usable parts.	512-517
10.1.2	Types or poultry include turkey, chicken, duck, goose, pheasant, quail, and other birds	504-505
10.1.3	Cooking methods: Poultry works well with most dry or moist heat methods, although some more mature birds are best cooked with a moist method to help with tenderizing.	523-529
10.1.4	Cooking temperatures: All poultry (whole, ground, or stuffed) must be cooked to a minimum temperature of 165°F.	523-529
10.2	Identify meat terminology and preparation techniques.	487-503, 517-519, 523-529, 533-539
10.2.1	All meat is inspected for safety. Quality grading of meat is optional.	491-492
10.2.1.1	Types of meat	493-504
10.2.1.2	Beef:	493-497
10.2.1.2.1	prime, usually used in fine restaurants	493-497
10.2.1.2.2	choice, sold in stores and used in lower-priced restaurants	493-497
10.2.1.2.3	select, sold in some stores and used in processed foods and noncommercial foodservice	493-497
10.2.1.3	Veal and lamb:	497-501
10.2.1.3.1	prime	497-501
10.2.1.3.2	choice	497-501
10.2.1.4	Pork:	501-504
10.2.1.4.1	not graded	501-504
10.2.2	Fabrication of meat	517-519
10.2.2.1	Wholesale cuts (also called primal cuts)	517-519
10.2.2.1.1	More tender (from support muscles)	517-519
10.2.2.1.1.1	Beef: rib, short loin, sirloin and tenderloin	517-519

10.2.2.1.1.2	Veal: rack and loin	517-519
10.2.2.1.1.3	Pork: loin	517-519
10.2.2.1.1.4	Lamb: loin and rib	517-519
10.2.2.1.2	Less tender (from movement muscles)	517-519
10.2.2.1.2.1	Beef: chuck, brisket, shank, plate, flank, and round	517-519
10.2.2.1.2.2	Veal: chuck, breast, leg (these are still fairly tender because the animal is so young)	517-519
10.2.2.1.2.3	Pork: shoulder/butt, leg	517-519
10.2.2.1.2.4	Lamb: fore and hind shank, leg, breast, shoulder, neck	517-519
10.2.2.2	Retail cuts (also called sub-primal or fabricated cuts). Examples include roast, steak, chops, stew meat and ground.	517-519
10.2.3	Cooking methods	523-529, 533-539
10.2.3.1	Dry heat: roasting/baking, grilling, broiling, sautéing, pan-frying, deep frying	523-529
10.2.3.2	Moist heat: stewing, steaming, simmering, boiling	533-539
10.2.3.3	Braising: a combination, because item is seared first, then has liquid added and is cooked covered	293, 450, 537-539
10.2.4	Tenderizing methods:	272, 293, 489 (Hints from the Chef), 490-491, 518
10.2.4.1	Mechanical: grinding, needling, pounding, cutting thin	489 (Hints from the Chef), 518
10.2.4.2	Chemical: marinating and meat tenderizers (these only help with thin cuts)	272, 489 (Hints from the Chef)
10.2.4.3	Cooking: slow and dry (i.e., smoking), slow and moist (i.e., stewing, braising, cooking in a slowing cooker/crock pot)	293, 490-491
10.2.5	Cooking temperatures	526, 527, 528, 533, 535, 536-537
10.2.5.1	Beef, veal, pork and lamb roasts, steaks and chops: minimum internal temperature is 145°F.	115, 118
10.2.5.2	All ground red meats: minimum internal temperature of 155°F.	115, 527, 528, 579

10.2.5.3	Anything cooked to a lower temperature than indicated above needs to have a warning included on the menu.	798
10.3	Identify seafood terminology and preparation.	543-555, 559-573
10.3.1	Types and selection	543-555
10.3.1.1	Fin fish	544-547
10.3.1.1.1	Round fish	544, 545-546
10.3.1.1.2	Flat fish - halibut and flounder	544
10.3.1.2	Shellfish	549-554
10.3.1.2.1	Crustaceans- crab, lobster, shrimp, crayfish	550, 551
10.3.1.2.2	Mollusks	551-552
10.3.1.2.3	Cephalopods - squid, cuttlefish, and octopus	553
10.3.1.2.4	Gastropods - conch, mussels, oyster, and scallop	552
10.3.2	Cuts/fabrication (for fin fish)	559-562
10.3.2.1	Drawn: gutted/viscera removed	559
10.3.2.2	Dressed: viscera and fins removed	559-560
10.3.2.3	Pan dressed: dressed and scales removed, head and tail optional (generally small fish)	559-560
10.3.2.4	Filet: boneless side of fish (cut parallel to spine)	560-562
10.3.2.5	Steaks: cut perpendicular to the spine; may include bone and/or skin; usually done only on fish heavier than 10 lbs.	560
10.3.3	Cooking methods depend on the size of portion and type of fish.	566-573
10.3.3.1	Fin fish: broiling, grilling, pan-frying, poaching, steaming, deep frying, baking	568-573
10.3.3.2	Shellfish: boiling	573
10.3.3.2.1	Shrimp: 3-5 minutes of boiling for 1 lb. in shell; turns pink and firm	573
10.3.3.2.2	Lobster and crab: 18-20 minutes per lb., turns red when cooked	573

10.3.3.2.3	Clams, mussels, and oysters: open when cooked, take about 3-4 min. single layer	573
10.3.4	Cooking temperatures: fin fish are recommended to cook at 145°F. Shellfish need caution not to overcook, because they become tough and rubbery	566
10.4	Identify vegetarian protein options.	774
10.4.1	Complementary proteins: Combining incomplete protein foods (i.e., rice and beans) for complete protein.	774
10.4.2	Soy and quinoa are sources of complete plant protein.	436, 465
10.5	Identify various types of legumes, quality characteristics, storage, and cooking.	433-436
10.5.1	Types of legumes	433-436
10.5.1.1	Beans: Lima, cannelini, black, pinto, kidney, soy, etc.	433-434
10.5.1.2	Lentils: Yellow, green and brown	434
10.5.1.3	Peanuts (raw or unroasted)	645
10.5.1.4	Split peas	434
10.5.2	When purchasing, look for smooth skins, uniform size and non-withered beans, or buy canned beans that have already been cooked.	433-436
10.5.3	Don’t purchase too many dry beans at once, as they do continue drying during storage. Older beans require longer cooking time and more water and tend to have a more mealy texture when cooked.	433-436
10.5.4	When cooking beans it is common to use two steps: soaking and simmering.	433-436
10.5.5	Avoid adding high acid ingredients such as tomatoes to the beans until after they are tender, as acid can interfere with the softening of the bean.	433-436

10.5.6	Refrigerate cooked beans for up to 3 days, and freeze them for up to 6 months.	433-436
Standard 11 Students will explore various cuisines from Europe, Asia, the Middle East and the Mediterranean.		
11.1	Discuss cuisine.	803-833
11.1.1	Cuisine: A style or method of cooking specific to a country, region, or establishment.	803
11.2	Identify common ingredients/foods and techniques from regional European Cuisine	812-813
11.2.1	Flavor profiles of France	812-813
11.2.1.1	Commonly used ingredients/foods	812-813
11.2.1.1.1	Fleur de sel, Herbes de Provence, Garlic, Olive oil, Butter, Wine, Cheeses, Olives, Lemons, Artisan bread and Herbs such as nutmeg, saffron, tarragon, chives, parsley.	264 (Chef Speak), 265-272, 281, 321-322, 416, 593-594, 595-597,
11.2.1.2	Culinary techniques	537
11.2.1.2.1	Cassoulet -a stew made with meat and beans.	537
11.2.1.2.2	Bouillabaisse - a rich, spicy stew or soup made with various kinds of fish, originally from Provence.	537
11.2.1.2.3	Quiche -a savoury, open-faced pastry crust with a filling of savoury custard with one or more of cheese, meat, seafood or vegetables.	694
11.2.1.2.4	Boeuf Bourguignon -a dish consisting of beef braised or stewed in a red wine sauce, to which mushrooms and onions are typically added.	526, 528
11.2.2	Flavor profiles of Scandinavia (Norway, Sweden, Denmark, Finland, Iceland)	818-819
11.2.2.1	Commonly used ingredients/foods	266, 268, 818-819
11.2.2.1.1	Dill, Onions, Mustard, Juniper berries, Gravlax, Meatballs, Fish, Caraway, Vinegar, Licorice, Root vegetables, Gamey meats and Herbs and spices such as allspice, cardamom, caraway, cinnamon, dill.	266, 268

11.2.2.2	Culinary techniques	818-819
11.2.2.2.1	Lefsa - a traditional soft Norwegian flatbread. It is made with potatoes, flour, butter, and milk or cream. It is cooked on a large, flat griddle.	818-819
11.2.2.2.2	Lutefish - lyed fish - dried cod or ling that has been steeped in lye. Preservation method.	818-819
11.2.2.2.3	AEbleskiver - pancake puffs	818-819
11.2.3	Flavor profiles of Eastern Europe	832-833
11.2.3.1	Commonly used ingredients	266, 268, 270, 271, 278, 595, 832-833
11.2.3.1.1	Paprika, Onion, Dill, Sour cream, Pickled vegetables, Caraway, Mustard seeds, and Herbs and spices such as juniper, mace, mint, mustard seed, nutmeg, paprika	266, 268, 270, 271, 278, 595
11.2.3.2	Culinary techniques	832-833
11.2.3.2.1	Borscht -a soup made with beets and usually served with sour cream, associated with the cuisine of eastern and central Europe, especially Russia, Poland, and Ukraine.	832-833
11.2.3.2.2	Pierogies -a dough dumpling stuffed with a filling such as potato or cheese, typically served with onions or sour cream.	832-833
11.2.3.2.3	Goulash -a highly seasoned Hungarian soup or stew of meat and vegetables, flavored with paprika	832-833
11.2.4	Flavor profiles of the United Kingdom	812-813
11.2.4.1	Commonly used ingredients/foods	263-265, 416, 417, 420, 421, 455-457, 812-813
11.2.4.1.1	Onions, Scallions, Brussel Sprouts, Potatoes, Cabbage, Salt and pepper, and Herbs and spices such as pepper, nutmeg, mace, marjoram, thyme	263-265, 416, 417, 420, 421, 455-457
11.2.4.2	Culinary techniques	812-813
11.2.4.2.1	Yorkshire pudding -a popover made of baked unsweetened egg batter, typically eaten with roast beef.	812-813
11.2.4.2.2	Scotch eggs -a hard-boiled egg enclosed in sausage meat, rolled in breadcrumbs, and fried.	812-813

11.2.4.2.3	Trifle – multi layered dessert including cake, custard, and cream.	812-813
11.3	Identify common ingredients/foods and techniques from regional Asia	820-821, 824-825
11.3.1	Flavor profile of India	820-821, 824-825
11.3.1.1	Commonly used ingredients/foods	269-271, 362, 416, 421, 433-434, 455-457, 462, 499-501, 504-505, 595, 820-821, 824-825
11.3.1.1.1	Garlic, onion, potatoes, cauliflower, eggplant, okra, peas, Basmati rice, legumes, lentils, Ghee, plain yogurt, lamb, goat, fish, chicken, naan, strong herbs and spices such as cardamom, cloves, cassia, cumin, turmeric, cilantro	269-271, 362, 416, 421, 433-434, 455-457, 462, 499-501, 504-505, 595
11.3.1.2	Culinary Techniques	820-821, 824-825
11.3.1.2.1	curry- spiced vegetable and/or meat dish with a hearty sauce	269, 399
11.3.1.2.2	tandoori – cooking in a cylindric clay or metal oven (tandoor)	821
11.3.2	Flavor profile of the Northeast	832-833
11.3.2.1	Commonly used ingredients/foods	266, 270, 271, 275-276, 305, 399, 416, 420, 436, 462-463, 468, 824, 832-833
11.3.2.1.1	rice, ginger, garlic, sesame seeds, mung bean, bok choy, seafood, soy, tofu, sake, dashi, palm sugar, citrus, fish sauce, vinegar, lemongrass, cilantro, pickled vegetables, mint, peanuts, cabbage, rice noodles, herbs and spices such as mustard seed, sesame seed, red chili pepper, anise, ginger	266, 270, 271, 275-276, 305, 399, 416, 420, 436, 462-463, 468, 824
11.3.2.2	Culinary Techniques	832-833
11.3.2.2.1	Steaming – in a bamboo steamer over a wok	32 (A Serving of History), 204, 450
11.4	Identify common ingredients/foods and techniques from regional The Middle East	816-817
11.4.1	Flavor profile of the Middle East	816-817
11.4.1.1	Commonly used ingredients/foods	271, 274-275, 281, 334, 362, 434, 499-501, 645, 646, 816-817
11.4.1.1.1	citrus, Ghee, olive oil, lentils, chickpeas, olives, pitas, honey, sesame, pinenuts, dates, lamb, herbs	271, 274-275, 281, 334, 362, 434, 499-501, 645, 646

	and spices such as cumin, nutmeg, cardamom, mint	
11.4.1.2	Culinary Techniques	816-817
11.4.1.2.1	Kebabs – food threaded on a skewer and roasted	816-817
11.4.1.2.2	Schwarma - pita filled with seasoned roasted meat	816-817
11.4.1.2.3	Falafle – spiced mashed chickpeas formed into fritters and deep fried	579
11.5	Identify common ingredients/foods and techniques from regional Mediterranean Cuisine	812-813
11.5.1	Flavor profiles of Italy	812-813
11.5.1.1	Commonly used ingredients/foods	812-813
11.5.1.1.1	anchovies, balsamic vinegar, capers, garlic, sweet peppers, olives, olive oil, barley, herbs such as basil, rosemary, oregano	276, 280-281, 416, 429, 465
11.5.1.2	Culinary techniques	812-813
11.5.1.2.1	Al Forno - in the oven	290
11.5.1.2.2	Bolognese - a meat sauce with a vegetable and tomato base cooked for several hours.	812-813
11.5.1.2.3	Caprese - olive oil, basil, tomato and fresh mozzarella dish	812-813
11.5.2	Flavor profiles of Greece	814-815
11.5.2.1	Commonly used ingredients/foods	266, 269, 274-275, 321-322, 416, 426, 595, 596
11.5.2.1.1	cucumber, feta, garlic, honey, lemon, olive oil, yogurt, lamb, herbs and spices such as chamomile, oregano, mint, cinnamon	266, 269, 274-275, 321-322, 416, 426, 595, 596
11.5.2.2	Culinary techniques	814-815
11.5.2.2.1	Souvla - method of cooking meat or fish on skewers over direct source of heat.	290, 451
11.5.2.2.2	Psito - the method of roasting meat, chicken or fish in the oven.	290, 451
11.5.2.2.3	Moussaka – ground lamb and eggplant layered in a dish	814-815
11.5.3	Flavor profiles of Morocco	816-817
11.5.3.1	Commonly used ingredients/foods	816-817

11.5.3.1.1	dried fruits, ginger, lemon, preserved lemons, couscous, almonds, herbs and spices such as ginger, turmeric, saffron, paprika, cumin	270, 271, 321-322, 338, 464, 644
11.5.3.2	Culinary techniques	816-817
11.5.3.2.1	Harissa - Moroccan red sauce made of chilies, garlic and olive oil, often used as a condiment.	816-817
11.5.3.2.2	Tagine - a spicy stew cooked in a shallow earthenware cooking dish with a tall, conical lid.	816-817
11.5.4	Flavor profiles of Spain	812-813
11.5.4.1	Commonly used ingredients/foods	266-267, 271, 274-275, 281, 409, 416, 502, 598-600, 812-813
11.5.4.1.1	anchovies, cheese (from goats, cows and sheep), garlic, ham, honey, olive oil, onions, nuts, gazpacho, herbs and spices such as paprika, saffron, parsley, mint	266-267, 271, 274-275, 281, 409, 416, 502, 598-600
11.5.4.2	Culinary techniques	812-813
11.5.4.2.1	A la brasa - to cook using a charcoal grill.	290, 451
11.5.4.2.2	Cocida - to stew or stewed.	293, 450
11.5.4.2.3	A la plancha - to grill on a metal plate.	290, 451
11.5.4.2.4	Paella – shellfish, rice and saffron	462-463, 815