Moon Area School District Curriculum Map

Course: Exploration of Cooking and Nutrition
Grade Level: 9-12
Content Area: FCS
Frequency: Semester Course

Big Ideas

- 1. After completion of this course elective, students will be able to recall, recite and demonstrate various techniques and exercises while executing numerous preparation and cooking methods.
- 2. After completion of this course elective, student will be able to recall, recite and demonstrate knowledge of basic dietary guidelines to promote and overall high standard of healthy living as it pertains to nutritional needs.
- 3. To stimulate interest in lifelong learning pertaining to food preparation and nutrition, as well as, a potential career in an FCS or food industry career.

Essential Questions

- 1. Why is important to learn safety and sanitation procedures and to apply these procedures in the FCS classroom?
- 2. Explain the importance of using proper utensils for the correct job. How are some utensils able to be used for multiple procedures?
- 3. Why is it important to be able to make proper adjustments to recipes?
- 4. Explain the importance of lab procedure and why it is crucial to follow the rules of the lab?
- 5. Why is it important to understand recipe terminology?
- 6. What is a *Garde Manger* and what skills are necessary to be successful in this position.
- 7. Why do we select sandwiches as a meal choice?
- 8. What are the five basic sandwich classifications?
- 9. What are the five classifications of salad?
- 10. How can culture and/or location effect salad dressing selection and/or creation?
- 11. Why do we cite so many knife selections, when the primary purpose is to cut things?
- 12. Why is proper knife maintenance important?
- 13. How might different ingredients impact the different sizes of cuts that are made when preparing food?
- 14. What should we consider when planning an event for a small and/or large group of people, and how can implementation of our considerations effect our lives?
- 15. What are appetizers and how can they be beneficial to event planning?
- 16. What are the six classifications of service and what are the pro's and con's of each?
- 17. Why is presentation important and what does it mean, "we eat with our eyes"?
- 18. What is a dietary guideline and how should we use them?
- 19. Should calorie content effect our food decisions and how so?
- 20. Why is there such an emphasis on fruits and vegetables?

- 21. How can we creatively incorporate fruits and vegetables into our diets?
- 22. How can we identify whole grain products?
- 23. Why don't all dairy products fulfill dairy needs of MyPlate?
- 24. Why aren't oils a food group if they are an essential part of the diet?
- 25. Are there any benefits to snacking?
- 26. Why is it important to use a nutrition facts label when selecting foods?
- 27. Is the information on the label specific to each individual?
- 28. What are the significance of the numbers "5" and "20" when selecting foods?
- 29. What is poultry and how is it classified?
- 30. How does the age and gender of the bird effect the quality of the meat?
- 31. What can effect the cooking times and methods when preparing poultry?
- 32. When using frozen poultry what steps do we need to take to make sure that the quality of the finished product does not suffer?
- 33. What is meat and how is it classified?
- 34. What are the different ways that we can identify fat in meat and how can it effect the price?
- 35. How does the price meat vary depending on how the meat is cut?
- 36. How did the 1906 book *The Jungle* effect the meat that we consume today?
- 37. What is yield grade and how should it effect the consumer?
- 38. What can determine how the meat can or should be cooked?
- 39. What are standing temperatures and why is it important to achieve certain temperatures when cooking meat?
- 40. What is the main benefit of a diet rich in seafood?
- 41. What is the main concern with eating a diet that is excessively rich in seafood?
- 42. Are there limitations with cooking different types of fish with its structure?
- 43. How does the grading system vary for fish from meat and poultry?
- 44. What are the different market forms of fish and how might they effect the price?
- 45. Why are not all diary products considered to be a part of the dairy group on MyPlate?
- 46. How does a particular dairy product effect the serving size when making dairy selections?
- 47. How have advancements in technology effected the quality of our diary products?
- 48. What are cultured dairy products and how can they positively impact our health?
- 49. Why are lower temperatures important to use when cooking with dairy products?
- 50. What is a roux and how do we use it in milk cookery?
- 51. What is a slurry and how do we use it in milk cookery?
- 52. Why are eggs considered to be one of the most versatile foods in cooking?
- 53. What is candling and how can it effect egg cost?
- 54. What is an emulsion and how do eggs serve as an emulsifier?
- 55. Why might people select egg substitutes over traditional eggs?
- 56. How do the proteins in eggs serve a function beyond their normal nutritional function?

Primary Resource(s) & Technology:

- Textbook- *Guide to Good Food*, The Goodheart-Willcox Company, INC. Copyright 2006, *Culinary Essential*, McGraw-Hill company, copyright 2010
- MyPlate.gov
- Microsoft Teams, Student Laptops
- Teacher Guided PowerPoints
- Teacher Guided Notes
- Provided Recipes
- Recipe Ingredients
- Use of Kitchens including various kitchen tools/equipment/appliances

Pennsylvania and/or focus standards referenced at:

www.pdesas.org www.education.pa.gov

Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)
B.I. 1 and 3 E.Q.1- 5	11.3.3.B 11.3.3.F 11.3.6.B 11.3.6.F 11.3.9.B 11.3.9.F	 Exploration of Cooking and Nutrition Overview Comfort with TEAMS and Skyward Review Syllabus and Course Overview Introductions Asynchronized and Synchronized Instruction
	11.3.3.B	 Unit 1: Course Introduction hygiene techniques in Food Markling Apply knowledge to avoid kitchen
	11.3.3.F	 accidents. Apply knowledge to avoid food borne g., volume, weight, fraction
	11.3.6.B	illness and other related effects on improper food handling. Applyokditiolexlthatorscatees shall ywoonkiple tenvironment for food product
	11.3.6.F	labs safely and efficiently reparation techniques and food-handling process
	11.3.9.B	ct and prevention of microbial contamination, parasites and toxic cl
	11.3.3.B 11.3.3.F	 Equipment, Appliances, Vocab, Reading a Recipe, Measuring and Equivalents Understand the importance of adjusting

recipes.

11	136F skill	ough cross-curricular teaching apply s that can be used in math which deal measuring and fractions.	
B.I. 1- 3 E.Q. 6- 17	Unit: Knife Planning Sand Sala Sala Knife	 Salad types Appetizer Accompaniment Entrée Palate cleansing Dessert Structure and arrangement Base ingredients Ingredient selection Dressings Instructor will demonstrate different types of dressings that can be made that will include at least one vinaigrette and one creamy mayobased dressing. E Skills: Construction and selection 	2-3 weeks
		Materials	

	■ Fabrication
	■ Tangs
	Knife parts
	Types of knives and general uses
	• Chef
	Utility
	■ Filet
	■ Slicing
	Serrated
	Paring
	Cutting boards
0	Knife sharpening
0	Knife safety
0	Different cuts
	Rondelle
	Dice-small, medium, large
	Brunoise
	Batonnet
	Julienne
	Mince
	Chiffonade
	Chopping
	• Grating
0	Knife safety
0	Demonstration of different knife
	cuts
0	Students will practice different knife
	cuts but creating a tossed salad
	where they will chop lettuce, dice
	peppers and tomatoes, rondelle
	cucumbers, julienne carrots, brunoise onion, and chiffonade
	spinach. Dressings will be used from previous demonstration as well as
	homemade croutons.
▲ Fwant	planning
	Event identification
	Planning tips
	Invitation
	• Who to invite
	Available space
	What to include on
	invitations
0	Menu
	 Appetizers
	 Menu arrangement

	 What we need to serve Types of service American Russian English Compromise Blue plate Buffet 	
	 Host's responsibilities Guest's responsibilities Students will plan various appetizers and present them in artistic ways. Various activities and assignments will be given to reinforce learning, which will include labs, worksheets, guided notes, PowerPoints, quizzes 	
	and a culminating exam for the unit.	
B.I. 1- 3	MyPlate Carrot vs. candy demonstration: One student will choose between a baby carrot and a fun size Hershey bar. Students will then exercise for a brief period of time to demonstrate how their food selections should/could effect their level of	2-3 weeks

- Frozen
- Canned
- Dried
- 100% fruit juice
- Group activity: briefly student will discuss why they believe there is such an emphasis on fruits and vegetables, and how to incorporate fruits and vegetables within in their diet.
- Grains group: key message to make half your grains whole grains
 - Whole grain
 - Refined grain
 - Individual activity: students will be shown pictures of bread packaging and will be asked to identify which ones are whole grain bread products.
- Dairy group: switch to fat-free or low fat (1% milk) dairy products
 - Dairy selection
 - Not all dairy products fall into dairy group of MyPlate
 - Calcium fortification
- Protein food group: key message is to go lean with protein
 - Vary selections
 - Portion sizes
 - Sodium levels
 - Group activity: student will be presented with 16 protein and dairy items. They discuss each item and list them in order from least to most based on fat content. Purpose of the activity is to see what they know about food products in terms of fat content and dispel any notions that they may have of healthy vs unhealthy eating.

- Drink selections
 - Water
 - Sports drinks
 - Coffee and tea
 - Diet soft drinks
- o Oils
 - Not a food group but an essential part of the diet.
 - Sources of oils
- Empty calories
- Snacking: students will first work individually to come up with pro's and con's of snacking. Then they will compare their list's their group members before we discuss as a class that benefits of snacking.
- o Physical activity
 - Children 6-17 needs
 - Adults needs
 - Moderately active vs. active
 - Students will participate in an activity individually where they will figure out the calorie burn rates of common candy selections vs. common exercises, for their personal weights.
- MyPlate website: Students will login to the MyPlate and create a profile while exploring the website and finding all of the benefits the website has to offer.
- Labs wills consist but not be limited to roasted chicken and other recipes to successfully build a plate that would fall into the guidelines of MyPlate. We will discuss portion sizes during this lab and students will weigh out and measure food to fit into the guidelines discussed by MyPlate
- Nutrition facts label
 - We will examine a nutrition facts label in class and discuss what each portion of the label means.

		• We will discuss why it is	
		important to use the labels in selecting foods.	
		 We will discuss the 	
		significance of the numbers 5	
		and 20 when selecting foods.	
		 Students will complete an activity for using nutrition 	
		facts labels specific to their	
		individual needs.	
		 Lab will consist of a lab of 	
		various dips where students	
		will create a full flavored version and a low fat version	
		of each dip and make value	
		judgements based on the	
		flavor of those dips.	
		 Various activities and 	
		assignments will be given to reinforce learning, which	
		will include labs,	
		worksheets, guided notes,	
		PowerPoints, quizzes and a	
		culminating exam for the	
		unit. Unit 4 Animal Protein Foods	
B.I. 1-	11.3.3.A	Poultry	3-6 weeks
3	11.3.3.B	 Definition: domesticate birds raised 	
E.Q.	11.3.3.C	for human consumption	
29-32	11.3.3.F	Poultry types:	
	11.3.6.A 11.3.6.B	ChickenGoose	
	11.3.6.F	GooseTurkey	
	11.3.6.G	o Duck	
	11.3.9.A	o Pigeon	
	11.3.9.B 11.3.9.D	o Guinea	
	11.3.9.G	Nutritional valueMyPlate	
	11.3.12.B	o Protein	
	11.3.12.D	o Fat	
		o Vitamins	
		 Mineral Maturity and tenderness	
		Waturity and tendernessEvaluation poultry	
		o Fresh	
		o Frozen	

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- Poultry classification
 - o Maturity- effects the tenderness of the meat
 - Gender- effects the tenderness of the meat
- Style- referring to the amount of processing the bird goes through
- Quality selections
 - o Color
 - Odor
 - Bone weight- effects the proportion of meat to bone as reflected on the final packaging weight
- Inspection and grading
 - Inspection is required of a poultry sold via interstate commerce
 - Grading for quality
- Poultry storage
 - Perishability of the bird; parts are more perishable than the whole bird
 - o Refrigeration storage
 - Freezer storage
- Poultry cooking principle
 - Moist heating methods
 - Simmering and poachingused more for whole, young birds
 - Braising- used in conjunction with dry heat method, cooked in liquid and accompanied by the liquid in which it is prepared.
 - O Dry heat methods
 - Roasting and baking- same method; roasted refers to whole bird and baking is the parts
 - Roasting temperatures:
 - Chicken:375-400°F
 - Turkey: 400-425°F, reduce heat to 325 °F

	Duck/goose: 375-425°F Squab: 400°F Standing time: time to allow meat to stand so juices aren't lost that will dry out the meat and cause the meat to become tougher Searing Broiling and grilling Frying Pan-frying Pep frying Pep frying Pressure frying Sauteeing Frozen poultry cooking principles Boning Assessment Labs will consist of but not be limited to fried chicken parmesan, and roasted turkey with
	and roasted turkey withThanksgiving style sides.Various activities and assignments
	will be given to reinforce learning, which will include labs, worksheets, guided notes, PowerPoints, quizzes and a culminating exam for the unit.
B.I. 1- 11.3.3.A 3 11.3.3.B E.Q. 11.3.3.C 33-39 11.3.3.F 11.3.6.A 11.3.6.B 11.3.6.F 11.3.6.G	 Meat Definition of meat: the edible portion of mammals which include muscle, fat, connective tissue, and water, as well as, bone. Muscle breakdown: About 75% water About 20% protein About 5% fat
11.3.9.A 11.3.9.B	Nutritional valueMyPlate

11.20D	D ()
11.3.9.D	o Proteins
11.3.9.G	o Minerals
11.3.12.B	Fats in meat
11.3.12.D	 Marbling- speckled fat throughout
	meat that contributes to tenderness
	 Fat cap- fat the surrounds the muscle
	tissue; more removeable
	 Barding- added fat that surrounds
	the meat; bacon on tenderloin for
	example
	 Larding- long thing strips of fat or
	vegetables inserted into the center of
	meat for moisture and visual appeal
	o Ground meat- higher in fat because
	fat is added or not removed; meat
	that should be used more sparingly
	Components of meat
	Muscle fibers- size of the fiber
	contributes to texture; larger fibers
	in ham and smaller in tenderloin
	collagen Collagen breaks down during
	Comment of the desired and the
	slow cooking
	■ Elastin aka "gristle" does not
	break down
	o Bones
	Meat cuts
	o Primal- aka "wholesale cut"
	o Fabricate- aka "retail cut"
	o Whole carcass
	• Beef
	 Meat from cattle usually over 12
	months of age
	 Distinct bright cherry red color, with
	creamy white fat and firm texture
	Classified by sex:
	 Steers- castrated males
	 Heifers- young females who
	have never given birth
	Veal- cattle less than 3
	month old
	• Pork
	 Meat from swine
	 Animals 7-12 months of age
	 Cured, smoked, or fresh
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 Lamb Meat from sheep Yearling lamb is less than 12 months old Mutton is over two years of age Variety meats Meat that is typically discarded because they are less desirable cuts of meats but still edible
 Liver Heart Kidney Tongue Feet Etc Inspection and grading Federal inspectors must inspect meat sold in interstate commerce, and will inspect the live animal and carcass
 Grading Prime- highest grade, usually reserved for restaurants Choice- good quality with good marbling Select- leaner and cheaper cuts of meat USDA graders check for: Color
 Texture Firmness Marbling Age of animal Yield grade- number 1-5 where 1 is the most usable meat and 5 contains a higher amount of fat Cuts of Pork Loin
 Shoulder/butt Spareribs/belly Ham Quality and characteristics of pork Processing pork Curing Smoking

Irradiation- small amount of radiation are applied to pork to eliminate bacteria and prolong shelf life Cuts of lamb Shoulder Shank/breast Rack o Loin o Leg Quality characteristics of lamb Lamb storage Cuts of veal o Shoulder Foreshank/breast Rack o Loin o Leg Quality characteristics of veal Cuts of beef o Chuck Brisket/plate/flank Rib o Loin o Round Quality characteristics of beef Processing beef o Curing o Aging- allows stronger flavors to develop over time o Irradiation Packaging- understanding how to read the labels on retails cuts of meat Meat cookery o High, dry heat methods are used for more tender cuts of meat Low heat is used for less tender cuts of meat Proper cooking temperatures- utilized to prevent foodborne illness o Pork- 145°F for 15 seconds o Beef Steaks and chops 145°F for

15 seconds

○ Inspection ■ Type 1	B.I. 1- 3 11.3.3.A 3 11.3.3.B E.Q. 11.3.3.C 40-44 11.3.5.F 11.3.6.A 11.3.6.G 11.3.9.A 11.3.9.B 11.3.9.D 11.3.9.G 11.3.12.B 11.3.12.D	r	
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■ Type 3	
o Grading	
■ Grade A	
■ Grade B	
■ Grade C	
Market forms of fish	
o Fresh fish	
■ Whole	
■ Drawn	
■ Dressed	
■ Fillets	
■ Butterflied	
■ Steaks	
■ Cubes	
■ Sticks	
Purchase and store fresh fish	
Frozen fish	
o Quality	
 Thawing and handling 	
 Purchasing 	
Canned fish	
• Shellfish	
 Mollusks- hard outer shell, no 	
interior skeleton	
 Univalve- single shell such 	
as conch	
■ Bivalve- two shell hinged,	
oysters and clams	
o Oysters	
■ Market forms	
 Handling and storage 	
o Clams	
Market forms	
Handling and storage Manage	
○ Mussels Market forms	
Warket forms	
Handling and storage Coallege	
○ Scallops ■ Market forms	
Market forms Handling and storage	
Handling and storage Crustocoms, bard outer shall, and	
o Crustaceans- hard outer shell, and	
joined skeleton O Lobsters	
■ Market forms	
Warket formsHandling and storage	
o Shrimp	

	7	1	
		Market forms	
		 Handling and storage 	
		o Crab	
		Blue crab	
		Soft-shell	
		 Alaskan king 	
		 Alaskan snow 	
		Dungeness	
		■ Stone	
		Market forms	
		 Handling and storage 	
		o Crayfish	
		Other forms of seafood	
		o Squid	
		P 1	
		• Fish and shellfish cookery	
		o Baking	
		Broiling and grilling	
		o Frying	
		o Poaching	
		Assessment- labs for this unit will consist of	
		but not be limited shrimp scampi, teriyaki	
		glazed salmon, etc., as well as	
		demonstrations to properly cook different	
		seafood.	
		 Various activities and assignments will be 	
		given to reinforce learning, which will	
		include labs, worksheets, guided notes,	
		_	
		PowerPoints, quizzes and a culminating	
		exam for the unit.	
		Unit 5 Eggs and Dairy	
D T 1	11001	• Dairy	
B.I. 1-	11.3.3.A	 Consists of milk and foods that are 	2-4 weeks
3	11.3.3.B	made from milks such as yogurt and	
E.Q.	11.3.3.C	cheese	
44-51	11.3.3.F	Nutrition	
	11.3.6.A		
	11.3.6.B	o MyPlate- 3 1 cup servings daily	
	11.3.6.F	 Serving sizes vary depending on the 	
	11.3.6.G	source	
	11.3.9.A	Cream, sour cream, butter etc. are	
	11.3.9.B	also dairy products but not	
			

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11.3.9.D	recognized as a part of the group in
11.3.9.G	MyPlate because of fat content
11.3.12.B	 Dairy selection
11.3.12.D	 Milk processing
	Pasteurization
	Ultra-high temperature
	processing
	 Homogenization
	o Types of milk
	o Cream
	 Yogurt and cultured dairy products
	 Concentrated milk products
	 Frozen dairy desserts
	 Non-dairy substitutes
	o Cheese
	Kinds of cheese
	 Process of making cheese
	• Cheese cost
	cheese storage
	 Students may participate in a
	cheese tasting depending on
	cost and availability, to
	identify different cheeses and
	their uses in cooking.
	 Cost of dairy products
	Storing dairy products
	Making low fat dairy choices
	 Cooking with dairy
	* *
	• Scum formation
	■ Boil over
	 Curdling
	 Scorching
	Whipping cream
	 Preparing common milk based products
	White sauce
	 Cream soups
	o Puddings
	Gelatin creams
	Geratific creamsIce cream and sherbet
	Cooking with cheese
	 Assessment- labs for this unit will consist of
	but not be limited macaroni and cheese,
	homemade custard, etc., as well as

	demonstrations to properly cook different
	dairy products.
	 Various activities and assignments will be
	given to reinforce learning, which will
	include labs, worksheets, guided notes,
	PowerPoints, quizzes and a culminating
	exam for the unit.
B.I. 1-	 Eggs and Breakfast cookery
3	 Eggs are one of the most versatile
E.Q.	foods that we use in cooking
52-56	Nutritional value
	o MyPlate: 5-6 ½ ounce servings daily
	of protein foods
	 One egg=One ounce serving
	o Protein
	 Vitamins
	 Minerals
	 Cholesterol
	Egg selection and storage
	o Grading- candling
	o Grade AA
	o Grade A
	o Grade B
	 Grading is based on appearance and
	does not necessarily effect the
	nutritional value of the egg.
	o Egg size
	Jumbo
	Extra large
	■ Large
	■ Medium
	Small
	• Pee wee
	 Storing eggs
	• Eggs as and ingredients
	o Emulsifier
	o Foaming
	o Thickener
	o Binding agents
	Interfering agent
	• Egg substitutes
	 Egg substitutes Egg cooking methods
	- DSS COOKING MCMOUS

Scramble Poach 0 Fry Bake Hard-cook Soft-cook Microwave Egg dishes **Omelets** 0 Souffle Frittata Quiche Quick service breakfast Breakfast meats Bacon Ham Canadian bacon Sausage Hash Steak Breakfast meat cookery Breads and cereals Ready made breads Hot cereals Cold cereals Doughnuts **Pastries** Quick breads Pancakes Waffles French Toast **Potatoes** Assessment- labs for this unit will consist of but not be limited omelets, pancakes, quiche, etc., as well as demonstrations to properly cook different dairy products. • Various activities and assignments will be given to reinforce learning, which will include labs, worksheets, guided notes, PowerPoints, quizzes and a culminating exam for the unit. **Final Assessment**

To show mastery level of course content students will participate in either:	1 week
A culminating final exam that will include	
content from each unit in the form of	
multiple choice, matching, true/false, and	
short answer or essay questions, orA beat Mr. Cook cooking challenge where	
they will work with their groups to	
challenge the instructor in a cooking	
competition.	

