

Name _____ Period _____

Unit 5

Food & Nutrition Science



Standards and Objectives

Unit 3: Food and Nutrition Science

STANDARD 6

Students will identify and discuss the importance of food and nutrition sciences and related careers through class activities and lab experiences. (FACS Food Science, Dietetics & Nutrition and Food Services\Culinary Arts Career Pathways)

Objective 1: Explore and apply the foundations of lab management and safety procedures critical in the foods service careers:

- a. Identify food safety and sanitation guidelines. (***STEM: Science**)
- b. Formulate basic equivalent conversions including doubling and halving recipes.

(*STEM: Math)

- c. Demonstrate correct measuring techniques. (***STEM: Math**)
- d. Apply safety and care concepts related to kitchen equipment and appliances. (***STEM:**

Technology)

- e. Identify cooking terms and demonstrate food preparation procedures.
- f. Practice table setting and appropriate social interactions during mealtimes.

Objective 2: Students will discuss and analyze basic nutrition information that is taught and practiced in dietetic careers.

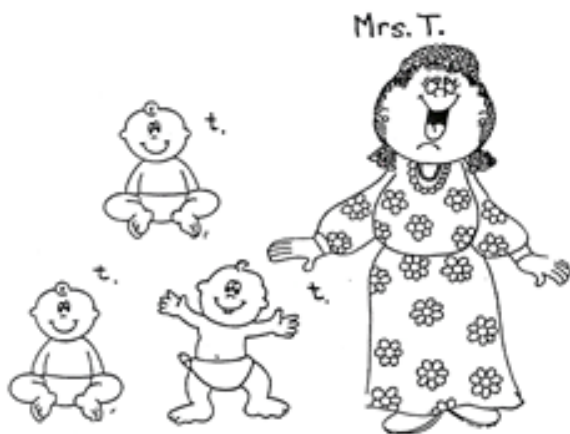
- a. Review the six basic nutrients for function: (carbohydrates, protein, lipids, vitamins, minerals and water).
- b. Identify food sources for the six basic nutrients.

Objective 3: Discuss the current USDA Dietary Guidelines and MyPlate.

Objective 4: Prepare recipes following the current USDA Dietary Guidelines and MyPlate.

Objective 5: Integrate consumerism/ entrepreneurship and careers included in food related industries.

Equivalent Cartoons



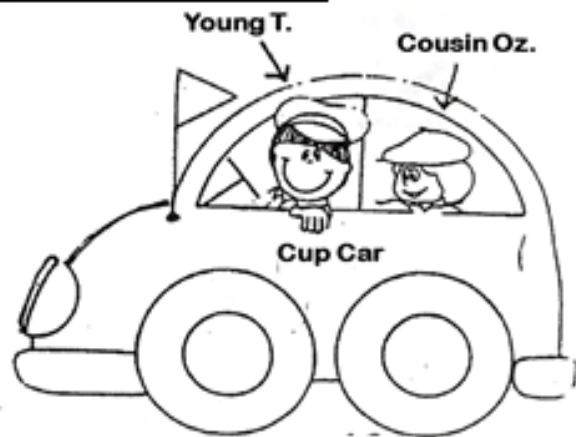
Mrs. T and Her Babies

Helpful Hints:

- T. = Tablespoon
- t. = teaspoon
- Mrs. T. has 3 baby t.'s
- There are 3 little t.'s with 1 big T.

Equivalents To Remember:

- 1 Tablespoon = 3 teaspoons
- 1/2 Tablespoon = 1 1/2 teaspoons
- 9 teaspoons = 3 Tablespoons



Young T. and Cousin Oz.

Helpful Hints:

- Young T. just got his drivers license-He is 16 (16 Tablespoons)
- He now gets to drive the "Cup Car" (1 Cup)
- Cousin Oz. is half as old as Young T.-He is only 8 (8 Ounces)
- It takes 8 ounces to fill up the "Cup Car" (8 oz. = 1 c.)

Equivalents To Remember:

- 8 Ounces = 1 Cup
- 1 Cup = 16 Tablespoons
- 3/4 Cup = 12 Tablespoons
- 1/2 Cup = 8 Tablespoons
- 1/4 Cup = 4 Tablespoons
- 1/8 Cup = 2 Tablespoons



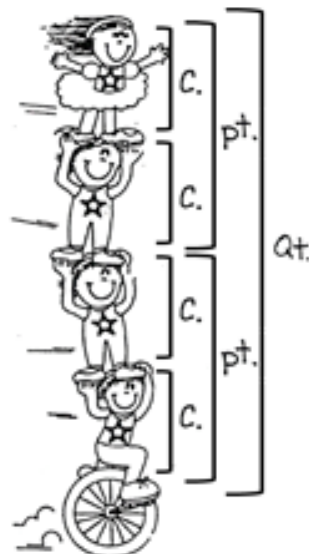
GAL the Butterfly

Helpful Hints:

- GAL stands for Gallon
- GAL's wings are so QT! (Quart)
- 4 Wings = 4 Quarts
- Small Circles Represent 1 C.

Equivalents To Remember:

- 4 Cups = 1 Quart
- 4 Quarts = 1 Gallon
- 16 Cups = 1 Gallon



The Cup Kids

Helpful Hints:

- Each Kid represents 1 cup
- Two Kids Equal a Pint
- Four Kids Equal 2 Pints
- Two Pints Equal 1 Quart

Equivalents To Remember:

- 2 Cups = 1 Pint
- 2 Pints = 1 Quart
- 4 Cups = 1 Quart

Kitchen Lab Rules

REMEMBER: BEING IN THE LAB IS A PRIVILEGE WHICH CAN BE TAKEN AWAY

1. Always wear a clean apron. If your apron gets dirty in the lab, put it in the dirty basket to be washed.
2. Always tie your hair back or wear a hair net. Any loose hair must be pinned back or under a hair net until the class is over.
3. Always wash your hands before touching food or equipment:
 - a. Use soap and hot water.
 - b. Wash for at least 20 seconds.
 - c. Use nail brush to clean under fingernails.
4. Keep electrical appliances away from the water. This also includes the microwave.
5. Remove hot items from the oven or microwave with hot pads or oven mitts, NOT hand towels or dish rags.
6. Wash with the washing towels and dry with the drying towels. Do not use either to wash or dry your hands. Use paper towels to dry your hands after washing them.
7. Never shove food down the sink drain. Always place it in the trash. There are no garbage disposals so food will rot in the drains.
8. Turn pan handles toward the middle or back of the stovetop.
9. DO NOT SIT ON THE COUNTERS!!! It is extremely unsanitary!
10. Do NOT taste food repeatedly with the same utensil while you are preparing it.
11. Stay in your OWN kitchen unit. Your group needs your help!
12. Put all equipment and supplies back in the correct drawer. (All drawers and cupboards will be checked-off after each lab.)
13. Clean-up your work area:
 - a. Wipe off counters with wet soapy dish rag and sanitizer.
 - b. Follow the *Dishwashing Procedure* listed on the board.
 - c. No food is to be pushed down the drain. Throw it in the garbage.
 - d. No food is allowed outside of the classroom.
 - e. Wash AND dry all dishes.
 - f. Wash AND dry out sink completely.
 - g. Put dirty towels and aprons in washer. Do NOT throw them in.
14. NO water fights with the kitchen faucets, or “messing around” of any kind:
 - a. Lab privileges will be taken away for the next cooking lab.
 - b. All labs will be made up at home.
15. If you are absent on a cooking day, you must make the recipe at home and bring back a small sample (if appropriate) or a picture of the finished product.

Kitchen Lab Procedures & Jobs

Lab Jobs:

1. You will be assigned to a lab group and given a number in that group. This number represents the “job” you will be assigned to for that cooking day. Your jobs will rotate each time you cook.
2. To find your job assignment, look on the whiteboard at the front of the kitchen lab.
3. If a member of the group is absent, their job must be divided among all members of the group present on that day.

Procedure for Getting Supplies:

1. Any supplies needed that are not already in your kitchen unit will be collected by the group member who is assigned to that job for the day. ONLY that person should be at the supply table.
2. In Cupboard 5, (under the sink), there is a pink tray. The “Supply Person” will place all measuring equipment needed on the tray and bring it up to the supply table to measure all remaining ingredients.
3. After getting all supplies, take tray and all equipment back to your kitchen. Do not leave any measuring equipment at the supply table.
4. Everyone should get a chance to help prepare part of the recipe. There should not be one person in charge. Share the duties and be respectful of everyone in the group.

Checkout Procedure: (Before ANYONE in your group can be excused)

1. All dishes must be checked off BEFORE putting them away.
2. All counters must be cleaned and sanitized.
3. All cupboards and drawers must be shut and closed.
4. Dish soap must be in the proper location (by the sink).
5. If the oven was used, all heating elements and timers should be turned off.
6. If the microwave or blender was used, the inside and outside must be clean.
7. All equipment must be back in the correct cupboards and drawers.
8. The sink must be COMPLETELY dried out, (especially around the spout and handles.)
9. The recipes should be placed on top of the microwave.



Student Signature: _____




Printed Name

Date

Period

Cooking Terms

1.	BAKE		
2.	BEAT		
3.	BLEND		
4.	BOIL		
5.	CREAM		
6.	CUT-IN		
7.	GRATE		
8.	KNEAD		
9.	MIX		
10.	PREHEAT		

11.	SAUTE		
12.	SIMMER		
13.	STIR		
14.	WHIP		

Measuring

Describe the proper way to measure each of the ingredients below:

1. Flour:
2. Sugar:
3. Brown Sugar:
4. Shortening:
 - a. P _____
 - b. Water- D _____ Method:
5. Liquid Ingredients (Oil / Milk / Water):
6. Margarine / Butter:
7. Eggs:
8. Nuts or Chocolate Chips:

Cooking Equipment

Draw a picture of the listed cooking equipment in the empty square next to the correct name.

	Removes food from spoons, sides of bowls and pans.	
	Used to level off dry ingredients.	
	Lifts and turns foods, such as pancakes and hamburgers	
	Used to hold small amounts of ingredients or to crack eggs separately.	
	Used to mix and combine ingredients.	
	Used to measure dry ingredients like sugar or flour.	
	Used to measure liquid ingredients like water or oil.	
	Used to measure small amounts of ingredients, liquid or dry.	
	Used whip "liquidy" ingredients to add volume and air.	
	Pan with tall sides used to cook foods like sauce or to boil water.	
	Pan with short/shallow sides used to cook foods like ground hamburger or bacon.	

The Six Basic Nutrients

1. What is a Nutrient?

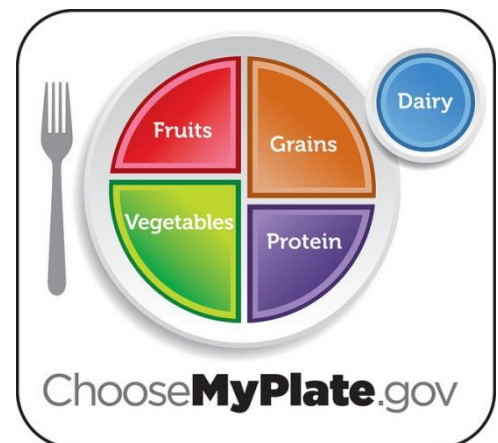
2. The SIX Basic Essential Nutrients Are:

Nutrient	Main Function	Healthy Food Sources
		Whole grains, cereals, beans, rice, pasta
		Meat, poultry, eggs, seafood, milk/milk products, cheese, nuts/seeds
		Olive oil, canola oil, avocados, olives, flaxseed, nuts, tofu, fatty fish (salmon, tuna, trout)
		Fruits and vegetables (especially red, orange and dark green), enriched grains, dairy products
		Fruits and vegetables (especially red, orange and dark green), dairy products, animal products
		Water

Intro to MyPlate

3. What is MyPlate?

4. MyPlate is broken into FIVE food groups.



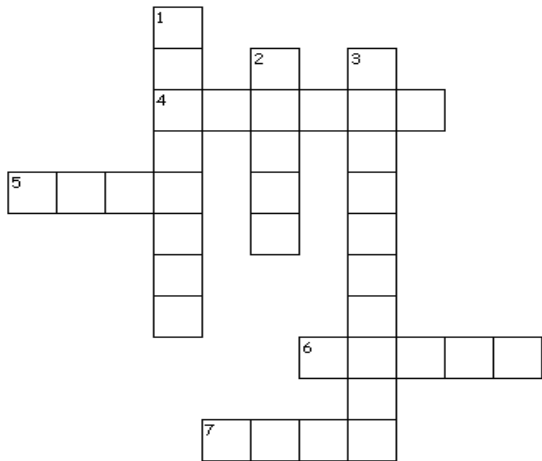
Food Group	Key Consumer Message	Major Nutrients
Fruits		
Vegetables		
Protein		
Grains		
Dairy		

Important Healthy Eating Tips

1. _____
 - Nutrient Dense: Foods that have a lot of important nutrients, but few calories.
2. _____
 - Empty Calories: Foods that have a lot of solid fats, sugar and calories, but few important nutrients.
3. _____
 - Control total calorie intake to manage body weight.
4. _____
 - Teens should be active at least 60 minutes or more each day.
5. _____
 - Spend less time in front of the TV, video games and phones and more time being physically active.
6. _____
 - Avoid oversized portions.

Careers Related to Foods & Nutrition: List 5 Careers:

Fight BAC: Clean- Complete the puzzle



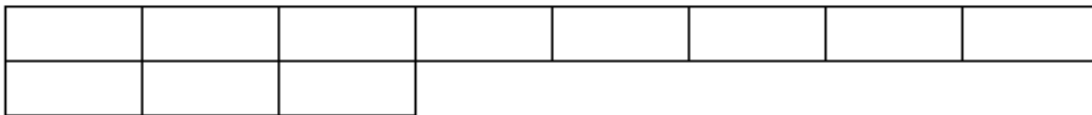
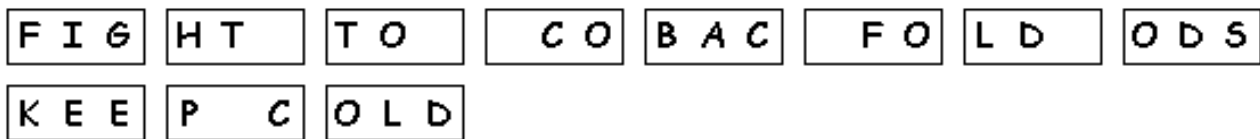
DOWN

1. Place your _____ on the floor, not on the kitchen counter or table.
2. Always use clean knives, spoons, plates, and _____.
3. Use cold water to wash fruits and _____.

ACROSS

4. Place _____ foods on a clean plate.
5. Wash your hands with warm water and _____.
6. Counters should be _____ if you put food on them.
7. Wash your hands after playing with _____.

Fight BAC: Chill- Unscramble the tiles to show the secret message



Fight BAC: Cross-Contaminate-
Find the words in the puzzle



Manners and Etiquette

Code of Polite Behavior

1. What is Etiquette?

- Codes of polite _____ used in our society.
- There are different codes of etiquette all around the _____.
- _____ involves much more than using the correct fork when dining out.
- Using good manners/etiquette shows _____ for the people and places around you.

2. Basic Social Etiquette

- Be p_____
- Say “P_____” and “T_____ Y_____”
- Remove hats when indoors
- Do not groom yourself in public
- Keep _____ chewing to a minimum
- Turn your phone ringer _____ when appropriate
- Keep conversations polite and appropriate
- Be p_____
- Do not p_____ (nose, ears, etc.)
- Do not s_____
- Do not stare

Basic Dining Etiquette

- Don't talk with your mouth _____. Chew with your mouth _____.
- Don't _____ in front of others. Ask for food to be _____ to you.
- Don't forget to use your _____. Place it on your lap during the meal. Don't tuck it into the neck of your shirt.
- Avoid _____ or smacking your food, blowing your nose or other gross noises at the table.
- Don't use your utensils like a _____. Take your time and enjoy your meal.
- Don't use your _____ when dining, especially with company. Turn it off completely or at least put it on _____.
- If your dinner party is small, _____ until everyone has been served their meal before beginning to _____.
- Cut large food items into _____ pieces. Don't try to put the whole thing in your mouth at once. Cut only _____ piece at a time.
- Don't prop your _____ on the table WHILE eating.
- Say “_____” if you need to leave the table.

Dining Styles

1. There are two basic dining styles:

a. _____

b. _____

2. American Dining Style:

a. Food is cut with the _____ in the _____ hand and the _____ in the _____ hand.

b. After the food is cut, the knife is placed down and the fork _____ to the right hand. Food is placed in the mouth with the tines facing _____.

3. European / Continental Dining Style:

a. Food is cut with the _____ in the _____ hand and the _____ in the _____ hand.

b. After the food is cut, the fork _____ in the left hand and food is placed in the mouth with the tines facing _____.

Table Settings

4. Basic things to remember about table settings:

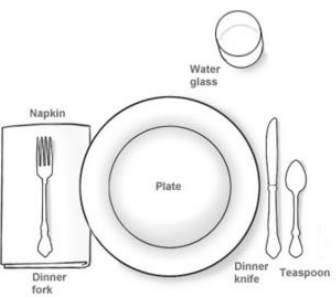
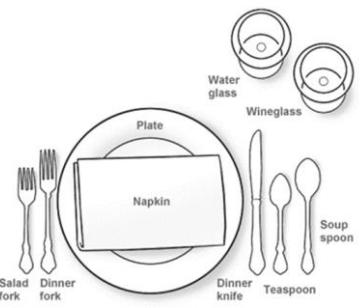
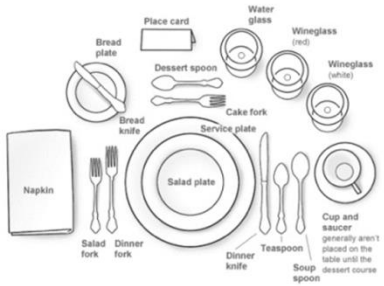
a. _____ are placed in the order of use.

b. Use utensils from the _____ in toward the plate.

c. _____ on to the _____ of the plate.

d. _____ and then _____ go to the _____ of the plate.

Label the Table Settings below:

5.	6.	7.
 <p>Labels in diagram: Napkin, Water glass, Plate, Dinner fork, Dinner knife, Teaspoon.</p>	 <p>Labels in diagram: Plate, Napkin, Water glass, Wineglass, Salad fork, Dinner fork, Dinner knife, Soup spoon.</p>	 <p>Labels in diagram: Napkin, Place card, Bread plate, Dessert spoon, Water glass, Wineglass (red), Wineglass (white), Service plate, Salad plate, Dinner knife, Teaspoon, Soup spoon, Cup and saucer (generally aren't placed on the table until the dessert course).</p>