

Boys and Girls Club Nutrition Education Summer 2011

Week 1: Fruit Week

Monday, July 11: Introduction Class

OBJECTIVE

Introduce the new MyPlate dietary tool to kids and launch food safety in the kitchen.

SUPPLIES

Paper plate, Markers

Glow in the dark paint

Small Lamp

Pretzels

Deli meat

Apples

Lettuce

Milk

(Various mixing, ziploc bowls)

LESSON

1. Icebreaker: Get to know you
 - a. Play Circle of Friends (kids stand in a circle, one person in the middle. Middle player introduces themselves and then the circle welcomes them with "Hi ____, welcome to the circle of friends." Middle player then responds, "all of my friends like __(favorite food)__". Any of the students that indeed do like that said food run across the circle and find a newly empty location (in a musical chairs sense). Player that doesn't find a place is the new middle man and introduces him/herself.
2. Introduce MyPlate...ask how many families eat off of triangle plates?
3. Make your own MyPlate
 - a. Give each student a paper plate and markers
 - b. Have students divide plate in quarters and label fruits, vegetables, grains and protein. For the younger children, draw fruits, vegetables, grains and proteins in the appropriate squares.
4. Food Safety

"Know that we know what to eat, we need to make sure it's safe to eat"

 - a. Squeeze drop of glow in the dark paint (germs) into kids hands, have them rub it in.
 - b. Turn lights off and small lamp on...have kids "light" their hands by lamplight.
 - c. Turn lamp on to reveal the germs on kid's hands.
 - d. Challenge kids to how good of hand washers they really are.
 - e. Upon returning from hand washing, retest their hands (part b) to see if they washed all germs away.
 - f. Mention 4 C's: Clean, Cook, Cross Contamination, and Chill for food safety
5. Mini MyPlate Sandwiches
 - a. Have kids draw a smaller circle in the middle of their previously made plates, encompassing all 4 food groups
 - b. Have kids make and eat sandwiches, placing each ingredient on created MyPlate:
 - i. Grain: 2 pretzels
 - ii. Protein: Deli meat slices
 - iii. Vegetable: Lettuce
 - iv. Fruit: Sliced apples
 - v. Dairy: Mini glass of milk

Wednesday, July 13: Fruit and Vegetable Lesson

OBJECTIVE

Students are familiarized with the benefits of eating fruits and vegetables.

SUPPLIES

Paper

Markers

Garbanzo Beans

Arugula

Grapefruits

Tangerines

Raisins

Yarn

Blindfolds

LESSON

Mark 5 large pieces of paper with vitamins/minerals numbered below. Write down high sources of each with fruits and vegetables on the paper. Put a hint (ex. eye or weight) on each piece of paper so kids can guess what each vitamin/mineral does for our bodies. Explore each vitamin/mineral separately:

1. Iron: Have children show their muscles...time children doing push-ups (or other activity). Have them write down number on back of iron paper. Sample garbanzo beans.
2. Vitamin C: Stress challenge of being sick and slowed down. Have kids partner. Conduct a 3 legged race. Sample grapefruit.
3. Potassium: Stress heart health. Have kids listen to their hearts, find their pulse and take resting heart rates. Have kids write their resting heart rates on back of potassium paper. Do 30 seconds of jumping jacks. Take working heart rate. Have kids write new pulse down. Stress importance of keeping heart healthy. Sample raisins.
4. Calcium: Time permitting, time another weight bearing exercise and discuss calcium and bone health. Sample arugula
5. Vitamin A: Stress importance of eye health. Have kids partner up. Blindfold 1 partner, other partner leads. Partners switch. Sample tangerines

Along with sampling...have kids conduct taste-testing. Youngest kids draw a picture of the food and a smile or frown depending on their evaluation. Older kids can use a 1-5 scale.

NOTE: Tangerines were a treat. Passing out tangerines last allowed for time to peel, eat and clean up before the end of class.

Week 2

Monday, July 18: Dairy Lesson

MATERIALS

2 Chicken Legs
TBLS of milk and TBLS of vinegar in 2 ziploc bags
String cheese
Food decorations: Arugula, Almonds, Raisins, Pretzels
Non-Fat Yogurt
Cottage Cheese
Dixie Cups, Spoons, Paper towels

LESSON TIMELINE

1. Why Dairy (5 Minutes)

- Intro...remember MyPlate
- Intro calcium: builds and maintains strong bones and teeth
- **Bones in vinegar:** Show children strength of chicken bone (leg works great, washed of any meat) soaked in milk. Then show children broken chicken bone that has been soaked in vinegar for about three days. Explain this is what happens to bones when they do not have any calcium.
- Brainstorm calcium sources
 - For older kids consider introducing milks nutrients: calcium, protein, potassium, phosphorous, vitamin A, vitamin D, Vitamin B12, riboflavin, niacin.
 - Vitamin D: helps the body absorb and use calcium
 - Protein: builds and repairs muscle
 - Potassium: helps maintain normal blood pressure and fluid balance



2. A Day of Dairy

Go through a whole day of activities, being sure to choose 3 cups of dairy throughout the day. Do a different activity at each station.

Teach kids the importance of getting 3 cups of milk a day and avoiding broken bones.

Teach a few serving sizes:

- Milk: 1 cup, 1 lunch half-pint
- Yogurt: 1 container only = $\frac{3}{4}$ cup
- Cheese: 2 slices hard cheese, $\frac{1}{3}$ cup shredded, 3 slices processed cheese
- Cottage Cheese: 2 cups
- Ice Cream: 3 scoops



Suggested Activities:

- Wake up: Lay down and pretend they are sleeping, then ask what they do in the morning. Emphasis breakfast.
- Have Breakfast: Suggest a list of breakfast ideas that include a cup of dairy. Let kids share what they usually have for breakfast, add a glass of milk to each. Sample: **Yogurt**
- Brush and floss our teeth: After breakfast brush teeth. Brush teeth activity: line kids up like teeth in mouth, child at end of line flosses first, hand child long piece of yarn, have child weave yarn through all of the "teeth", repeat with next child at new beginning of the line.
- Go to school
- Math: Place a piece of paper on the table. Give each student a marker and have them estimate and write down how many bones are in their body. Do the same with teeth. Have them count the number of teeth in a partners mouth. Add and subtract multiple numbers.

- Make a craft: Cheese Stick Bugs. Let kids design their own creature.
- Go to P.E.: Play fastest farmer. Time each student, pretend to milk hand udders (hands crossed, thumbs pointed down) 5 times, and then run to a bucket and back.
- Go Home and help make dinner: Add **Cottage Cheese**, sample
- Read a story before bed



Cheese stick bugs using MyPlate:

- Dairy: ½ cheese stick body
- Protein: almond scales
- Fruit: 2 raisin eyes
- Vegetable: Arugula wings or tails
- Grain: pretzel legs



Wednesday, July 20: Grain Lesson

OBJECTIVES

Kids discover the difference between whole and refined grains.

Learn the USDA “half plates whole” recommendation.

Understand the value of whole grains with Magic Whole Grain Salad

SUPPLIES

- Grains: Whole Wheat Spaghetti, Brown Rice, Quinoa, Whole Wheat Rotini, Whole Wheat Farfalle
- Italian Dressing
- Dixie Cups and Forks

LESSON TIMELINE

1. Chain Game: Cut paper in strips that can be stapled into chain links. Give kids markers and time 5 minutes, watching them come up with as many grain as they can and writing them down on the strips. Staple grain links together, make it a competition against grades to come up with the most grains. For older kids, only allow one of each grain idea...throw multiple grains away.
2. Explain whole grain vs. refined grain: Move to a circle. Show a whole wheat kernel, bran, germ and endosperm and their benefits.
3. Food Cards: Put cards of multiple foods in a bag, include 5 cards for 5 ingredients. [Card Examples: <http://www.bellinstitute.com/DisplayResource.aspx?ID=369>] Have each kid draw a card and decide what type of food it is. If it is a grain ask if its whole. If not, explain how to make it a whole grain (example, hamburger bun or tortilla). As whole grains ingredients are drawn from the bag, add them to your salad bowl.
4. Making Magic Salad: Put drops of food coloring in bottom of salad bowl before class starts. When all 5 whole grains have been drawn, add dressing and toss. As pasta changes color, emphasis magic grains...how good they are for your body. Taste.



NOTE: During the chain game, older kids enjoyed collecting all of the strips they came up with in 5 minutes. When I called out one of the grains that was being added to the link, they crumpled up their duplicate and enjoyed throwing it over their shoulder. Making a minor mess was engaging. Clean-up was simple.

Week 3

Monday, July 25: Protein Lesson

OBJECTIVE

Familiarize children about protein importance and emphasize non-animal sources.

SUPPLIES/PREPARATION

- Cookie ingredients (Sugar, Milk, Butter, Cocoa Powder, Peanut Butter, Oats, Vanilla)
- Wax Paper
- Samples of Nuts and Seeds
- Tuna Fish Cans
- Mayonnaise
- Ritz Crackers
- List of 20 Questions and/or Activities (try Dairy Council)
- Bean Bags (Dried Beans, few pairs of socks)
- Samples of Beans



LESSON

Spend time with different types of proteins, playing activities and tasting some:

1. MEAT & EGGS

- Explain protein and the complete proteins from meat and beans.
- Next explain that there are other protein sources and introduce learning what others are during the class

2. FISH

- Students "Go Fishing" for numbered fish (rocks, plastics, etc.) out of a bowl of water.
- Numbers correspond with a question or activity. When question is asked: correct answers are collected on the "deck," wrong answered fish are thrown back into the water. All fish/questions must be answered and bought to the deck before the fish can be eaten.
- Taste: Tuna fish on Ritz crackers

3. BEANS

- Bean Bag Toss using MyPlate:
 - Lay a MyPlate poster onto floor
 - Students take turns tossing bean bag onto plate
 - 1 point for landing on a food group, 2 points for landing on the protein group
 - 1st student to ? points wins the game
- As game fades, allow students to sample black beans, garbanzo beans and kidney beans

4. NUTS & SEEDS

- Make no bake cookies with students:
- Assign roles to groups of 2-4 (one group scoops sugar into cup, another group cocoa, etc.)
- Give each student a piece of wax paper and a scoop of no bake "dough," have them add their favorite nuts to the cookies (almonds, sunflower seeds, cashews or pecans). In addition to the peanut butter added in the recipe, kids will be introduced to quite a few nuts and seeds.

Reduced Fat No-Bake No-Cook Cookies

½ cup	Sugar
1/3 cup	Milk
¼ cup	Butter
2 2/3 TBLS	Unsweetened Cocoa Powder
1/3 cup	Crunchy Peanut Butter
2 cups	Quick-Cooking Oats
¾ TSP	Vanilla Extract

NOTES

* Waiting until the end of the class period to make the cookies was the best way to keep kids motivated and attentive for the rest of the class.

Wednesday, July 27: Outside Games

1. Scavenger Egg Hunt
 - a. Hide Easter eggs filled with papers of different foods from different food groups.
 - b. Pick a food group and have kids run and collect eggs in the food group (kids can open eggs to look for foods)
 - c. 5 rounds will have 5 winners

* Foam stickers or plastics would work in place of eggs
2. MyPlate Race
 - a. Divide kids in groups...no less than 5
 - b. Lay multiple containers of each food group on the ground. 1st person in each group runs to the pile of foods, picks one and then races over to place it on the large MyPlate marked on the yard. If food is placed in the correct food group, they race back and tag the next person in line to do the same.
3. Red Light, Green Light
 - a. Play the classic game using red and green colored fruits and vegetables as commands.
4. End games with a glass of chocolate milk.

Friday, July 29: COOKING DEMONSTRATION VIDEO DAY

Thursday, July 28: 5th and 6th grade will choose meal and plan partnered cooking demo

Rules: Each group gets 5 minutes of filming
Prepare one recipe
Each recipe must have at least 1 ingredient from each of the 5 food groups
Each chef must share 1 thing that they have learned about the new MyPlate

Have groups fill out card to right before filming.

NAME _____
GROUP NAMES _____
ONE THING YOU HAVE LEARNED _____

CLASS NAME _____
RECIPE _____
<input type="radio"/> FRUIT _____
<input type="radio"/> VEGETABLE _____
<input type="radio"/> GRAIN _____
<input type="radio"/> DAIRY _____
<input type="radio"/> PROTEIN _____

Week 4

Monday, August 1: **Advertisement MyPlate Posters, MyPlate Salesman, Craft Day**

SUPPLIES

Markers

Stickers

Paper

Placemats or yards of vinyl material

Permanent Markers

LESSON

1. Divide students into groups...have them design posters for their own MyPlate
 - a. Have each group present poster at end of class.
 - b. Ask each group how they will convince other club members to eat using MyPlate recommendations.



2. Make MyPlate Placemats

- o Each student makes their own MyPlate placemat to take home.



Wednesday, August 3: Pizza Dough and Tomato Sauce

1. Set up ingredients and measuring cups and have kids make batches of dough.
 - a. Once large batches are made cut dough into small pieces and have kids knead their own for 5-7 minutes.
 - b. Spray and place individual dough balls into Ziploc bags and store with names.
2. Make Healthy Tomato Sauce
 - a. Set up 4 blending stations with diced tomatoes, chopped carrots, chopped onions, and zucchini. Blend each, combine in large pot and heat on simmer for 30 minutes.

Thursday, August 4: Pizza Day

Grain: Dough rolling

Fruit: Tomato Sauce, Pineapples

Dairy: Cheese

Vegetable: Eggplant, Zucchini, Squash, Onion, Sliced tomato, Spinach, Mushrooms, Red, Orange and Yellow Peppers, Garlic

Protein: Turkey, Canadian Bacon, Pepperoni, Black beans

Pizza Crust Recipe

4 1/2 cups (20.25 ounces) unbleached high-gluten, bread, or all-purpose flour, chilled
1 3/4 (.44 ounce) teaspoons salt
1 teaspoon (.11 ounce) instant yeast
1/4 cup (2 ounces) olive oil (optional)
1 3/4 cups (14 ounces) water, ice cold (40°F)
Semolina flour OR cornmeal for dusting
Parchment Paper
Non-Stick Spray
Ziploc Bags

Makes six 6-ounce pizza crusts.

Stir together the flour, salt, and instant yeast in a 4-quart bowl. With a large metal spoon, stir in the oil and the cold water until the flour is all absorbed. Do this for 5 to 7 minutes, or until the dough is smooth and the ingredients are evenly distributed. The dough should clear the sides of the bowl but stick to the bottom of the bowl. Transfer dough balls to a food-grade plastic bag after spraying with non-stick spray. Put the pan into the refrigerator overnight to rest the dough, or keep for up to 3 days.

On the day you plan to make the pizza, remove the desired number of dough balls from the refrigerator 2 hours before making the pizza. Preheat oven to 500F. Line large baking sheet with aluminum foil and spray foil with non-stick spray.

Give students directions to make pizzas categorizing each ingredient into its food group on a MyPlate poster.

Allow students to roll their own dough balls, spread sauce and place toppings on personal pan before being baked on prepped baking sheet.

Create a pizza word search puzzle, have students work on puzzle while pizza cooks.

(http://www.softschools.com/language_arts/words/worksheets/word_search503.html)

Week 5

Tuesday, August 9th: Hit On the Consumer Tips

OBJECTIVE

Put into perspective the real meaning of the common consumer tips available to the public. Create an affordable recipe that also incorporates these tips, also staying in line with MyPlate.

SUPPLIES

- Brown Rice
- Frozen Vegetables
- Beans
- Teriyaki Sauce
- Grain Trading Cards
- Construction Paper, Tape

LESSON

Let students choose which station they would like to explore after explaining some of the consumer tips provided by the USDA:

- Make at least half your grains whole grains
 - Use cards of grains and relay teams to organize whole and enriched grains
- Vary your veggies
 - Assign a vegetable to each kid
 - Make vegetable hats using markers, stickers and construction paper



- Focus on fruit
 - Allow children to complete a fruit maze and/or word search
- Get your calcium rich foods
 - Switch to fat free or 1% milk...allow for sampling.
- Find your balance between food and physical activity
 - Explain that we eat more when you exercise more and avoid oversized portions.
 - Challenge kids to build tall towers of flimsy cups...practicing balance.
- Keep food safe to eat
 - Explain 4 C's:
 - Cook
 - Chill
 - Cross Contaminate
 - Clean
 - Combine this station with "Go lean with protein." Choose chefs to help in the kitchen preparing a teriyaki stir-fry dish with serve stir-fry vegetables, beans, and brown, whole grain rice.



Wednesday, August 10th: Cook Books

OBJECTIVE

Create a collection of the recipes students have made throughout the summer.

SUPPLIES

- Construction Paper
- Yarn
- Stickers and other decorations
- Snack (Carrots and Italian dressing)
- Cookbooks

LESSON

Let kids make cookbooks of the recipes they have made during the summer, especially ones that are simple to make. Also let students search through cook books and write down the recipes that they would like to try.



Thursday, August 11th: Food As Our Strength

OBJECTIVE

Teach students that nutrition is the food you eat and how your own body uses it. Reinforce that all nutrients needed by the body are available through food and a well-balanced diet specific to our own bodies.

LESSON

- In pairs, have students mark how tall they are on a sheet of paper...opening our different sizes and needs and bodies
- Next, have students make their own food shields, pieces of construction paper cut into diamonds, decorated with their favorite foods in each food group. Affix "handle" paper strip to back of each shield.
- Then, go outside. Use large soft balls to symbolize colds, flu and disease. Play dodgeball and other appropriate games where students use their food shields to protect themselves against the dangers.