

HARVESTER'S- A FIELD EXPERIENCE AS A NUTRITION INTERN

By

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A Field Experience Report

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## **ABSTRACT**

This report highlights my experience as a nutrition services intern at Harvester's located in Kansas City, Missouri. The field experience was completed as one of the requirements for the Master of Public Health at Kansas State University. During the spring and summer of 2013 I worked with Ms. Taryn Glidewell, the Nutrition Services Manager at Harvester's. My involvement in various community outreach nutrition activities offered through Harvester's and the surrounding communities improved my public health experience. I worked on a variety of projects and endeavors throughout the Nutrition Services Department with the major project focusing on creating a new curriculum for one of the child nutrition programs called Kid's Cafe to be used in the upcoming school year and offered in a variety of community settings throughout Kansas City.

This field experience allowed me to work with a vast array of individuals who differed in ethnicity, age, educational levels, gender, income levels, geographic setting, etc. Direct work with nutrition education allowed me to utilize my core coursework and create educational lessons to be used in a variety of settings with children enrolled in the Kid's Cafe program and enable children in a wide array of areas to make better nutritional choices.

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Lastly, I would like to thank my husband, Travis and friends for unending love and support throughout my educational career. I could not have done it without each and every one of you.

## **BACKGROUND & INTRODUCTION**

The World Health Organization considers food security as a situation “when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life” (WHO, 2013). Food insecurity is defined as “the condition of not having regular access to enough nutritious food for a healthy life” (Coleman-Jensen, et. al., 2012). Tarasuk (2001) defines food insecurity as “the limited or uncertain availability of nutritionally adequate foods, and is strongly related to financial insecurity and poverty. Food-insecure households had difficulty at some time during the year providing enough food for all their members due to a lack of resources; with those in the most severe range increased by almost 3 % (Coleman-Jensen, et. al., 2012). When an individual in the United States becomes food insecure it generally occurs repeatedly but is not a chronic condition (Nord, 2013) (Coleman-Jensen, et. al., 2012). A total of 17.9 million households across the United States are considered food insecure (Coleman-Jensen, et. al., 2012).

Among those who are food insecure, rates of food insecurity were higher than the national average among individuals with the following characteristics (Coleman-Jensen, et. al., 2012):

- Households with children, specifically under the age of 6,
- Single parent households
- Black, non-Hispanic households
- Hispanic households
- Low-income households with incomes below 185% of the poverty threshold

## **OBESITY & FOOD INSECURITY**

Research has shown, families with young children who experiences food insufficiency at any point during the toddler years is 3.4 times more likely to be obese than a child who is food secure. Low birth weight is also positively correlated with being obese later on during the toddler stages as well (Cook, & Jeng, 2009). Food insecure families are also at a greater risk for not only obesity but under nutrition as well (Cook, & Jeng, , 2009) (Coleman-Jensen, et. al., 2012). Approximately one out of every five children is impacted by malnutrition and obesity (Coleman-Jensen, et. al., 2012).

Obesity is highly correlated with additional health problems such as joint degeneration, hypertension, diabetes, cardiovascular disorders, etc. These issues are now being found in younger children, not only adults. The cost of obesity among children ages three to seventeen years of age was at a staggering \$127 million in 2003 and is only increasing (Cook, John & Jeng, Karen, 2009).

## **EDUCATION & FOOD INSECURITY**

Studies also have shown children in food insecure households also have lower grades, are sick more often and are more likely to have to repeat a grade (Cook & Jeng, 2009). Food insecure children also have a harder time getting along with other children (Cook, & Jeng, 2009). Another study found children between the ages of six and twelve were more likely to have psychosocial dysfunction than food secure households (Cook, & Jeng, 2009).

## HARVESTER'S

Harvester's mission is "to feed hungry people today and work to end hunger tomorrow".

Harvester works with 620 non-profit agencies throughout Kansas and Missouri in a 26 county region (Harvesters 2013). Harvester's is also a certified member of Feeding America, which is a nationwide network of more than 200 plus food banks (Harvesters, 2013). Harvester's not only collects food but distributes food to local agencies as well as provide nutrition education and offer leadership and education programs to increase community awareness of hunger and generate solutions to alleviate hunger (Harvesters 2013). Harvester's has four main initiatives, these initiatives are: Childhood Hunger Initiative, Healthy Eating Initiative, Senior Feeding Initiative & the Feeding Families Initiative.

**Figure 1.1 Harvesters Service Area**



Across Harvesters' service area more than 378,000 people are food insecure and it is estimated that more than 61.7 million meals annually are missing from the tables of families who are struggling with hunger (Harvesters, 2013).



The Childhood Hunger Initiative comprised the main focus of this field experience. This initiative has three main programs: Kids Café, Kids in the Kitchen and the BackSnack program. The primary goal of the Kids Café is to provide nutritious meals for children after school during the school year and during the summer. Kids Café was created in 1993 by Feeding America. Kids Café works with after school and summer programs to offer children a safe welcoming environment with a warm meal to help combat childhood hunger. Another program offered through Nutrition Services is the Kids in the Kitchen. This is a four week course offered to children emphasizing food preparation, food safety skills, nutrition and the importance of making healthy food choices. The BackSnack program provides low-income children with backpacks full of food to get them through the weekend. This partnership occurs between Harvesters and area schools and local organizations. Harvesters provide the backpacks and the food to go into the backpacks for the program. Schools and/or organizations then distribute these backpacks on Friday to students who will then bring the backpacks back on Monday to be replenished for the next weekend.

The second initiative at Harvester's is the Feeding Families Initiative. This initiative has three separate programs: the Harvesters Network, the Mobile Food Pantry and the Holiday Meals Program. Through the Harvester's Network, as many as 66,000 people each and every week are fed through a variety of food pantries and on-site feeding programs across Kansas and Missouri. The Harvester's Networks provides distribution of food to onsite feeding centers and food pantries each week. The mobile food pantry program is the direct delivery of fresh produce and other foods on a regular basis to specific agencies throughout the Harvester's service areas. The Holiday Meals program is the third

program included under the feeding Families Initiative. This program provides individuals and families with warm meals during the holidays throughout November and December each year.

The third initiative of Harvester's is the Healthy Eating Initiative, consists of four programs: Project Strength, Plant a Row for the Hungry, Food Rescue and Food Drives. Project Strength is the adult nutrition education program that allows adults hands-on meal preparation through a curriculum that teaches adults how to make nutritious food choices and how to create healthy meals with limited resources. The Plant a Row for the Hungry program encourages local gardeners to plant an extra row of fruits and vegetables and donate the produce to Harvester's. Another program under the Healthy Eating Initiative is the Food Rescue program. This program links restaurants and cafeterias throughout the Harvester's network that donate nutritious, prepared foods with on-site feeding programs, such as homeless shelters, domestic violence and low-income day care centers. The fourth program under the healthy eating initiative is food drives. These food drives are the most important source of nutritious, non-perishable foods like canned fruits and vegetables as well as peanut butter and canned tuna.

The fourth and final Initiative through Harvester's is the Senior Feeding Initiative. This program involves a mobile food pantry for seniors where perishable, nutritious foods are delivered to low-income and homebound seniors at senior housing sites found throughout the Harvester's service area.

As shown in Table 1.1 Food Donations found below, in the fiscal year 2012, Harvesters distributed more than 41 million pounds of food and household products in the 26 counties Harvesters covers in Kansas and Missouri (Harvesters, 2013). As seen in Table 1.1, a large majority of donated food comes from local food industries as well as Feeding America.

**Table 1.1 Food Donations**

<b>Where the Food Comes From</b>	
Local Food Industry	15,858,225 pounds
Other Food Banks	987,030 pounds
Food Rescue Programs	629,054 pounds
Purchased Food	7,492,064 pounds
Feeding America	18,511,413 pounds
Food Drives	1,650,540 pounds

For as little as \$1, Harvesters can feed 5 individuals (Harvesters 2013). This is possible through a central distribution model in which dollars are leveraged to acquire, sort, package, transport, store and even distribute donated food items. As shown in Table 1.2 Food Distribution, once food is acquired and packaged, it is then distributed to food pantries, hot meals and shelters (Harvesters 2013). With the wide majority of the food being sent to food pantries.

**Table 1.2 Food Distribution**

<b>Where the Food Goes</b>	
Food Pantries	90%
Hot Meals	8%
Shelters	2%
Avg. distribution per month	3,609,887 pounds
Avg. number of meals per month	3,008 meals

Harvesters along with Feeding America completed a study in 2011; the data was released June 2013 (Harvesters 2013). This data is known as Map the Meal Gap Study. The study provides information food insecurity rates for each county and congressional district. In the 26 country service area Harvesters serves, 15.4% of the population is food insecure (Harvesters 2013). Of the food insecure population, 43% did not qualify for food nutrition programs (Harvesters 2013). These families rely heavily on charitable food assistance programs. Food insecurity rates within the Harvesters region range anywhere from 20.5 percent in Wyandotte County to 10.5 percent in Nemaha and Pottawatomie County in Kansas (Harvesters 2013).

## **HARVESTERS: NUTRITION SERVICES DEPARTMENT**

Harvester's Nutrition Services Department is just one integral part of Harvesters. The main agenda of the Nutrition Services Department is to provide educational classes to the community. There are several different classes offered to a wide array of ages. Some classes are for children only while other types of classes are offered to adults. The two programs the Nutrition department is in charge of are the Kids in the Kitchen program and the Kids Cafe program. These two programs are offered in the community in a variety of settings. Some classes are offered at schools while others are offered at a community center or even at a church. The adult class the nutrition department is involved in is Project Strength. Eight week long classes offered to adults that not only focus on healthy cooking but on healthy living as well. The meals are all low sodium, low cost meals. The nutrition department is also in charge of

the onetime classes offered throughout the community. Sometimes these classes focus on diabetes or on other topics such as single living and cooking for one.

## **KID'S CAFE CURRICULUM DEVELOPMENT**

The major project I completed while at Harvester's was the development of a curriculum for the site supervisors to use once a month at Kid's Café sites. The curriculum, the first of its kind in the Kansas City Metro area is proposed to start in the Fall 2013 in a variety of settings located in the Kansas City metro area during the school year. Initial observations were done at several sites to see how the program worked in a variety of environments as well as observing how Kid's Café program operated at different sites. After observations were completed, I met with several larger Kid's Cafe site supervisors to determine what they felt would be beneficial in the curriculum to them. I received numerous amounts of feedback from each of these meetings. Kid's Cafe site supervisors preferred to have straightforward, simple lessons where there was not a lot of material needed to implement the lessons as resources at the majority of these sites were extremely low.

Lessons were created to be geared around MyPlate as well as the elements of MyPlate for elementary-aged children. Lesson plans were made to be used in a number of settings and with little prep for each of the site coordinators. The only materials needed to complete lessons were the worksheets which were provided and a pencil and or crayons. Actions or things site supervisors were to do were listed in blue colors while the talking and discussion pieces to the curriculum were italicized, in parentheses and colored in orange.

The curriculum was tested on sixty-three Nieman Elementary School children to determine whether the lessons would improve nutritional practices. After getting feedback from the children and site supervisor, lessons were then edited. Upon completion of the lessons, I met with the key Kid's Café coordinator as well as the head of nutrition services to gain approval for Fall 2013 use.

## **EVALUATION & RECOMMENDATIONS**

The trial phase of the Kid's Cafe Nutrition curriculum was tested and evaluated on children attending Nieman Elementary Kid's Cafe Nutrition program in Shawnee, Kansas. The children ranged in grades from Kindergarten to fourth grade. There was a good mixture of both males and females throughout the group as well as children of all different ethnicities. Due to the large number of the Kid's Cafe attendees the group was split up into two sections so all the children have room to spread out and eat their meal. The lessons were given before the meal was handed out. During the trial period, children learned about the effects of breakfast, what a more nutritious breakfast option looks like and healthy breakfast alternatives.

During the trial period, students at Nieman Elementary were administered a pre-test (group 1) before the start of the nutrition lesson. Once the lesson was completed, a post test (group 2) was administered to see what how Kids Cafe participants had been educated. The test was a series of five questions. Since the group of children were between the grades of Kindergarten and Fourth grade not all of them had the capability to read. The test was administered by questions and answers and answered by a show of hands due to the inability of everyone capable of reading and writing. Children were asked the four following questions during the pre and post-test.

- Which breakfast choice is more nutritious?
- Skipping breakfast is okay.
- All breakfast cereals are good for you.
- Eating breakfast helps us in school to concentrate.

With the first question “Which breakfast choice is more nutritious?” an image of leftover pizza was shown and then a picture of a fruit with yogurt was shown. Students raised their hands for one or the other and numbers were recorded for each one. For the remainder of the three questions, students raised their hands if they agreed with the statement. The exact same set of four questions was asked once again after completion of the nutrition lesson.

When asked if leftover pizza or fruit with yogurt was a more nutritious choice, 47 children raised their hand for fruit with yogurt while 16 children raised their hand for leftover pizza. When asked if skipping breakfast was okay, 27 children raised their hands agreeing with the statement, whereas 36 children raised their hands disagreeing with the statement. When asked to raise their hands if they felt “All breakfast cereals are good for you”, 43 children raised their hands in agreement whereas 20 students did not. When children were asked “Eating breakfast helps us in school to concentrate”, 32 children raised their hands in agreement with the statement whereas 31 students did not agree with the statement.

Upon completion of the nutrition lesson, children were then asked the same four questions once again. When asked a second time, if “leftover pizza or fruit with yogurt was a more nutritious choice”, 58 children raised their hand for fruit with yogurt while 5 children raised their hand for leftover

pizza. Seventy-four percent of children answered the question correctly during the pretest whereas ninety-two percent of children answered the question correctly during the post-test. This shows an 18% increase in knowledge.

When children were once again asked if “Skipping breakfast was okay”, 53 children disagreed with the statement whereas 10 students agreed with the statement. Eighty seven percent of children answered this question correctly as opposed to fifty-seven percent the first time around; equaling a 27% increase between the pre and post-test.

When asked to raise their hands if they felt “All breakfast cereals are good for you”, 11 children raised their hands in agreement whereas 52 students did not. Eighty-two percent of students answered the question correctly during the post-test as opposed to only thirty-one percent during the pretest. This comes out to a 51% increase in knowledge.

When children were asked during the post-test if, “Eating breakfast helps us in school to concentrate”, 49 children raised their hands in agreement with the statement whereas 14 students did not agree with the statement. Fifty-one percent of students answered the question correctly during the pre-test whereas seventy-seven percent of children answered the question correctly during the post-test. This data shows a 26% increase in knowledge.

Completing a pretest and post-test allowed an assessment of whether children understood the information given to them through the lesson. Improvements were made in between group 1 (pre-test) and group 2 (post-test). Data from the study showed children learned (51% improvement) the most about the nutritional value of cereals and not all cereals have the same nutritional value. Children showed 27 percent improvement between group 1 (pre-test) and group 2 (pre-test) for the question on



skipping breakfast. Children also increased knowledge about the importance of eating breakfast.

Children showed 18 percent improvement between group 1 (pre-test) and group 2 (post-test) for the question on which nutritional item was more nutritious. They were able to differentiate between what a more nutritious breakfast choice would be and what less nutritious choice. Children within the group could also differentiate the different aspects of several breakfast examples and break them into what food groups they belonged too. Children were able to demonstrate this by being given a breakfast meal and then asked to break it into the respective food groups. Nieman elementary students also were able to explain why eating breakfast everyday was important and the effects that can be experienced without breakfast. Children showed 26 percent improvement between group 1 (pre-test) and group 2 (post-test) for the question on the importance of eating breakfast and the effect on concentration.

One of the first insights I found during the testing stage of the curriculum is not a lot of material's are needed to in order to fully educate children on nutrition. Children can easily comprehend and obtain knowledge from a simple discussion and allowing themselves to problem solve and come up with attainable solutions. By allowing the children to give their own examples and discuss some of their favorite breakfast items, they were more eager to learn and participate. Future curriculum training should include more attention to social demographics of the children at hand. The curriculum in its present form did not address the poverty levels of the children and their families. Nor did the curriculum address issues of cultural competency, such as potential language barriers or culturally defined food preferences. Future programs should also focus more intently on family income, number of family members per household as well as include involvement from other family members.

The great majority of site supervisors were excited to see a curriculum they would be able to use with the children and help educate and reiterate important nutrition education to the children.

Unfortunately not everyone was so positive. Some staff really didn't want to have to do anything else. In fact one staff told me, "I really don't want to do it but I guess if I have to I will." Although I was bothered by individuals with this type of thinking as these lessons were created to be easy, incredibly simple lessons that could be done in as little as fifteen to twenty minutes it is a reminder that earning cooperation from the staff is important to the success of the program.

I also observed while working in the variety of settings at the Kid's Cafe locations not every site supervisor has the same level of education. In fact, some site supervisors were being educated right along with the lessons that were being given to them to teach. The lessons were created to be easy, simple to use and incredibly direct so site supervisors who were not as greatly educated in nutrition education would still be able to teach the children and use the lessons.

Ideas that could be improved upon would the testing procedure. Ideally, I would have liked to have more staff available so I could have had the children complete the pre and post-test on worksheets instead of tallying a show of hands. With the group being a mixture of kindergarten through fourth grade students it would have been difficult for those students who were younger to complete worksheets on their own. Resources at the testing site were limited as were staffing. For this particular scenario this was the best solution at hand to administer testing

# CURRICULUM OUTLINE

## Lesson 1: Where Does It Come From?

- Elements of MyPlate
  - Fruits
  - Vegetables
  - Protein
  - Grain
  - Dairy

## Lesson 2: Which Is More Nutritious?

- Importance of breakfast
  - How it makes us feel
  - What it does for the body
- Breakfast options
  - Nutritious options
  - Less nutritious options

## Lesson 3: Portion Sizes

- What is a portion?
  - Portions vs. Serving Size
- Portion Examples

## Lesson 4: Colors Everywhere

- Fruit & vegetable
  - Serving Sizes
- Phytochemicals
  - What are they?

### **Lesson 5: Lunch**

- Importance of lunch
  - What it does for the body
- Lunch option
  - More Nutritious options
  - Less Nutritious options
  - Creating nutritious options out of less nutritious options

### **Lesson 6: Food Safety**

- Food safety defined
- Hand washing and other hygiene
- Cross contamination

### **Lesson 7: Snack Attack**

- Snacks
- Nutritious options vs. Less Nutritious Options
- Moderation

### **Lesson 8: Colorful Dinner**

- Review food groups
- Define Variety
- Create a colorful meal

### **Lesson 9: Choices**

- Review MyPlate food groups
- Discuss how to make healthier choices

## **REFLECTION ON MY FIELD EXPERIENCE**

My experience at Harvesters gave me incredible insight into how a food bank works. While the great majority of my time was spent on working on curriculum to be used in the Fall 2013 school year I learned so much from all the other programs associated with the nutrition education department. Harvester's tackles the problem of food insecurity and poverty head-on. They not only focus on feeding the hungry but educating them as well, making sure they know how to prepare and cook the food they are given. Initiatives are constantly taken to not only provide meals to them but to give them knowledge. Harvester's also addresses issues of community policies and environments. One of my favorite experiences at Harvester's was going on a food rescue. I had to arrive at Harvester's in Kansas City in the wee hours of the morning around 5 o'clock and meet a truck driver to go around town. Harvester's connects with the vast array of restaurants in town, whether they are fast food places or high class dining food was given from other restaurants. We went everywhere from Pizza Hut to the chef run Capital Grill.

One of the hardest things to experience during my time at Harvester's was going to the rural areas to distribute food & recipes. I was always amazed at the very large line of people lined up already when we had arrived. I was told many of them had been sitting there since about 3 o'clock in the morning in fear of not being able to receive a box of food.

One of the other amazing experiences I witnessed while at Harvester's was the many different populations that were served. While meeting with location supervisors at one Kid's Cafe site, I saw that all the children were of vastly different ethnicities. Children were from Nepal, Burma, South America &

Southeast Asia. Each different group of children were speaking their native tongue. It is one of the most beautiful and inspiring things I have ever seen.

My attitudes and beliefs about poverty and nutrition were greatly affected during my time at Harvesters. I saw firsthand how important not only the food boxes were for each and every individual but how important bringing in the nutrition educational pieces too. At times, individuals were wary about certain recipes or the fact that there was absolutely no salt in a single recipe. I think I heard “How cans this even taste good without salt?” about 5 thousand times by the end of my time at Harvester's.

One of the greatest learning experiences and/or astonishments I learned while at Harvesters is the lack of knowledge with simply cooking. The average individual who came in to do cooking classes or orientation, whether they were in an actual class or whether they were a coordinator at a service site, the great majority had absolutely no idea how to cook anything. But even the increase in knowledge will not guarantee better eating habits, not without the public health approach that requires us to consider the role of the social environments in which people are forced to live.

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**APPENDIX A:**  
**Kid's Cafe Lesson Plan**

## LESSON 1

### KEY POINTS

Words that are *ORANGE* and italicized will be spoken.

Words in *BLUE* are actions you will complete.

- Going over the elements of My Plate
  - Fruits and Vegetables
  - Protein
  - Grain
  - Dairy

*“Let’s talk about the five food groups. Can anyone name the five food groups?”*

(Show children the My Plate visual aid)(Allow a few children to respond)

*“That’s right, the five food groups are: fruits, vegetables, protein, grains and dairy. The first one we are going to talk about is fruits”.*

*“How much of My Plate should be made up of fruit?”*

(Allow a few children to respond)(Hold up example of My Plate and point out the fruit section)

*“A little less than a quarter of the plate should be compromised of fruits. Can we name a few fruits?”*

(Allow a few children to respond and add in a few examples of fruits.)

*“How much of My Plate should be made up of vegetables?”*

(Allow a few children to respond)(Hold up example of My Plate and point out the vegetable section)

*“A little more than a quarter of the plate should make up the vegetable section of your plate. Let’s name a few vegetables.”*

(Allow a few children to respond and add in a few examples of vegetables.)

*“How much of our plate should be made up of grains?”*

(Allow a few children to respond)(Hold up example of My Plate and point out the grains section)

*“A little more than a quarter of the plate should make up the grains section of your plate. Let’s name a few items that are found in the grains section.”*

(Allow a few children to respond and add in a few examples of whole grains. Ex: whole grain pasta, whole grain bread, oatmeal, and rice, cereal.)

*“What about protein? How much of our plate should protein take up?”*

(Allow a few children to respond)(Hold up example of My Plate and point out the protein section)

*“A little less than a quarter of the plate should make up the protein section of your plate. Let’s name a few items that are found in the protein group.”*

(Allow a few children to respond and add in a few examples of protein. Ex: beans, chicken, beef, tuna, fish, nuts, eggs, peanut butter and seeds.)

*“Last but not least, how much dairy should be eaten each day?”*

(Allow a few children to respond.)

*“We should eat or drink about 3 cups of milk or its equivalent in cheese and yogurt.”*

*“Can anyone name a few examples of dairy?”*

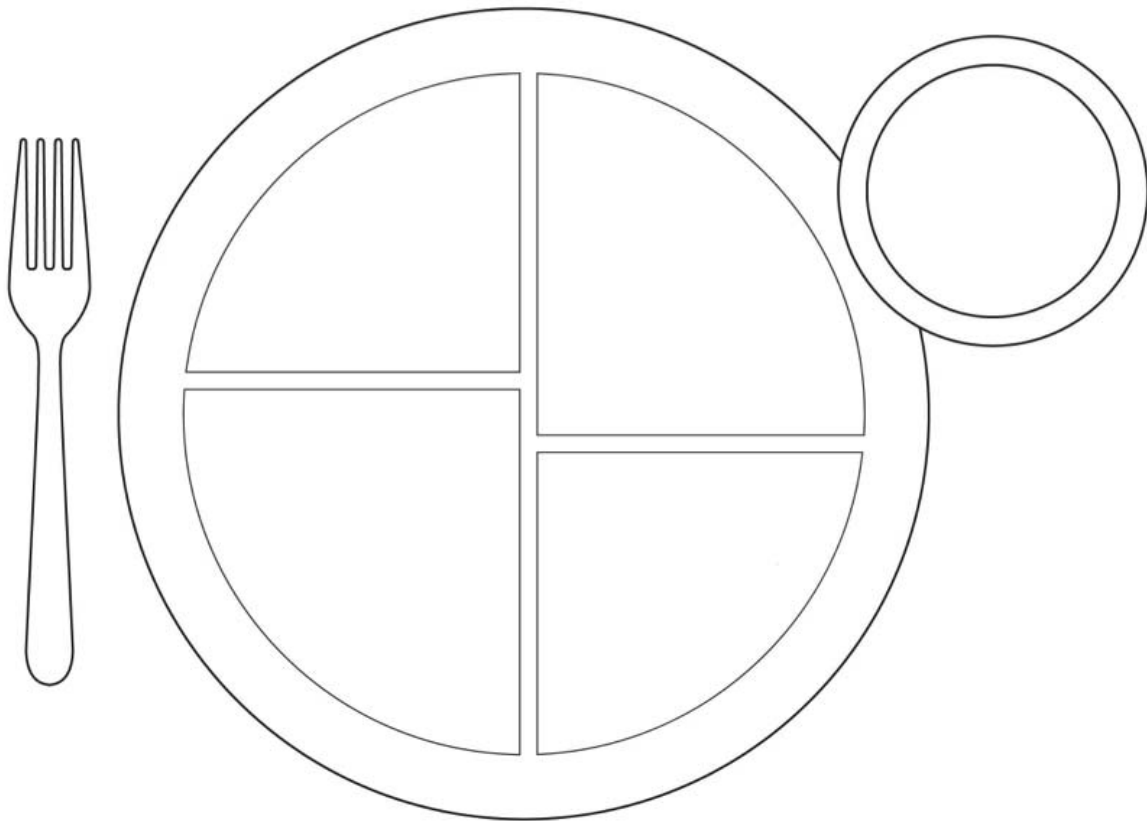
(Allow a few children to respond and add in a few examples of dairy. Ex: milk, yogurt, cheese)

*“Now we are going to complete a worksheet.”*

(Hand out Lesson 1 worksheet to children.)

# Lesson 1: Where Does it Come From?

WRITE OR DRAW YOUR FAVORITE MEAL BELOW. THEN DECIDE WHAT FOOD GROUPS ARE IN YOUR FAVORITE MEAL AND LIST THEM.



## Lesson 2 KEY POINTS

Words that are *ORANGE* & italicized will be spoken.

Words in *BLUE* are actions you will complete.

- Importance of breakfast
  - How it makes us feel
  - What it does for the body
- Breakfast options
  - Nutritious options
  - Less nutritious options

*“Breakfast is a very important meal of the day. Let’s talk about how it makes us feel. By a show of hands, who eats breakfast every morning?”*

*(Allow a few seconds to see the show of hands.)*

*“How does it make you feel when you eat breakfast?”*

*(Allow a few children to respond)*

*“What about when you do not eat breakfast, how does it make you feel?”*

*(Allow a few children to respond)*

*“Can anyone tell me why it is important to eat breakfast every day?”*

*(Allow a few children to respond)*

*“Breakfast is important because it fuels our bodies & our minds. Breakfast is also important because it gives us the vitamins and nutrients so we can have energy to do the things we do every day; play with our friends, focus in class, run, jump, etc.”*

*“Let’s talk about what you eat for breakfast. What are some of your favorite breakfast foods?”*

*(Lead into a discussion of healthy breakfast options versus non-healthy.)*

*“A few breakfast options that are healthy are: a fruit salad, oatmeal with fresh fruit or nuts or even scrambled eggs.”*

*“What are a few less nutritious breakfast options?”*

(Allow children to answer)

*“A few less nutritious food options are things like donuts, leftover, pizza, sugary cereals, etc.”*

(Pick a nutritious option that was suggested & discuss the food groups that are involved in that breakfast. Then pick a less nutritious option and discuss the food groups associated with that breakfast.)

(More nutritious breakfast options: Oatmeal with nuts and fresh or dried fruit with a glass of milk. The oatmeal belongs to the grain group, the nuts belong to the protein group, the dried fruit is from the fruit category and the glass of milk is from the dairy category.

Less nutritious breakfast choices: are chocolate muffins or donuts and breakfast cakes. Food groups most commonly associated with these are the grains group and do not include any of the other groups. )

(Handout Lesson Two worksheet to students to complete)

**WORKSHEET ANSWER KEY:** yogurt & fruit, oatmeal, & granola bars are the more nutritious options.

Sometimes granola bars aren't as nutritious when they are loaded with chocolate chips and covered in sugar or syrup coatings. The option here is more nutritious because they are made with whole grains and dried fruit.

## Lesson 2: Which is More Nutritious?

Breakfast is the most important meal of the day! Circle all of the more nutritious breakfast options below.



Leftover Pizza



Donuts



Low-fat yogurt  
& fresh fruit



Homemade granola  
with dried nuts and fruit



Oatmeal with raisins



Fruit Loops



### Lesson 3

#### KEY POINTS

Words that are *ORANGE* & italicized will be spoken.

Words in *BLUE* are actions you will complete.

- What is a portion?
  - Portions vs. Serving Size
- Portion Examples

*“Today we are going to talk about serving sizes and portions. Can anyone tell me what a serving size is?”*

*(break)*

*“What about a portion size, can anyone tell me what a portion size is?”*

*(allow children to answer)*

*“A portion or portion size is what ends up on your plate. A serving size is a specific amount of food or drink that is measured out. Sometimes our plate or eyes can trick us and make us think we are eating the right portions when in fact we are eating too much.”*

*“Can anyone tell me what a serving of fruit or vegetables are?”*

*(allow children to answer)*

*“A serving of fruit or vegetables is half a cup. A serving size of pasta is also a half a cup. What object do think is closest to this in size?”*

*(allow children to answer)*

*“A half of a cup is closest to half a baseball in size.”*

*“Let’s look at a few protein choices. A serving of chicken or steak is about 3 ounces; about how large is 3 ounces? Can you guys think of an object that is almost 3 ounces in size?”*

(allow children to answer)

*“A serving of chicken or steak should be the size of a deck of cards which is three ounces.”*

*“Let’s look at cheese. What do you think a serving of cheese would be?”*

(allow children to answer)

*“A serving of cheese is about 3 ounces. This equals about 3 dice. Now we are going to complete a worksheet talking about the servings sizes we just discussed.”*

*(Hand out Lesson 3 worksheet for the children to complete)*

**WORKSHEET ANSWER KEY:** 1) dice 2) baseball 3) deck of cards

# Lesson 3: PORTION SIZES

Portions are an important part of healthy eating. Below you will need to use the word bank to decide what the right serving sizes are.

WORD BANK: DICE BASEBALL DECK OF CARDS



A SERVING SIZE OF CHEESE  
IS THE SAME SIZE AS THREE

\_\_\_\_\_ .



A SERVING SIZE OF PASTA  
IS THE SAME SIZE AS A

\_\_\_\_\_ .



A SERVING SIZE OF CHICKEN  
IS THE SAME SIZE AS A

\_\_\_\_\_ .

## Lesson 4

### KEY POINTS

Words that are *ORANGE* & italicized will be spoken.

Words in *BLUE* are actions you will complete.

- Fruit & vegetable
  - Serving sizes
- Phytochemicals
  - What are they?

*“Today we are going to talk about colors found in fruits and vegetables. Let’s see who can remember how many servings of fruits and vegetables are we supposed to be eating daily?”*

*(Allow children to guess the answer)*

*“Children should be getting about 1 ½ cups of fruits a day and 2-2 ½ cups servings of vegetables a day. Can someone tell me why eating fruits and vegetables with a variety of color are important?”*

*(Allow a few children to answer)*

*“Not only are eating fruits and vegetables important because they contain lots of vitamins & minerals which help fuel our body and make them strong and healthy but they also contain chemicals called phytochemicals. Raise your hand if you have heard of this word before “phytochemical”?*

*(Allow for a show of hands)*

*“The color part of fruits and vegetables comes from the phytochemical inside the plant. For example, the red skin on an apple or the green found in spinach. Phytochemicals are important to our bodies because they help us fight of illnesses, fight against cancer, keep our bodies healthier & even help our eyesight Each different color we find in fruits and vegetables does a different thing for our bodies& this is why it is so important to eat a rainbow!”*

*“Now I am going to handout a worksheet. You will see there are colors listed on the paper. You will need to name a fruit AND a vegetable for each color. You can either draw the fruit or vegetable or draw a picture of each.”*

(Show the rainbow poster for children to use if they cannot think of a fruit or vegetable themselves. Hand out Lesson 4 worksheet for children to complete. Use sheet provided to get different ideas for each color.)

# LESSON 4: COLORS EVERYWHERE

LIST OR DRAW A FRUIT *AND* A VEGETABLE FOR EACH COLOR LISTED BELOW

RED:

ORANGE:

YELLOW:

GREEN:

BLUE:

PURPLE:

## Lesson 5 KEY POINTS

- Importance of lunch

Words that are *ORANGE* & italicized will be spoken.

Words in *BLUE* are actions you will complete.

- What it does for the body
- Lunch option
  - More Nutritious options
  - Less Nutritious options
  - Creating nutritious options out of less nutritious options

*“Lunch is also an important meal of the day, it often occurs during the middle of the day. Can anyone tell me why it is important to eat lunch every day?”*

(Allow a few children to respond)

*“Lunch is important because it refuels our bodies & our minds in the middle of the day. Lunch is also important because it provides us with the vitamins and nutrients so we can have energy to concentrate. What are the five food groups we should have at every lunch?”*

(Allow a few children to respond)

*“That’s right; we should have protein, dairy, fruits, vegetables & whole grains.”*

*“Let’s talk about what you eat for lunch. What are some of your favorite lunch meals?”*

(Lead into a discussion of nutritious lunch options versus less nutritious options.)

*“A few other lunch options that are nutritious are: a sandwich on whole wheat with a lot of vegetables & lean meats, a salad, whole wheat pasta with spaghetti sauce and vegetables.”*

*“What are a few less nutritious lunch options?”*

(Allow a few children to respond)

*“A few less nutritious food options are things like nachos, fried chicken nuggets, and cheeseburgers. Let’s talk about ways we can make our less nutritious lunch options healthier. What can we do to pepperoni pizza to make it more nutritious?”*

(Allow a few children to respond)

*“We can switch out the pepperoni for Canadian bacon & add a lot of vegetables or substitute the pepperoni for all vegetables. Now we are going to complete a worksheet on nutritious versus less nutritious options.”*

(Handout Lesson Five worksheet to students to complete)

**WORKSHEET ANSWER KEY:** Chicken nuggets, nachos and the sloppy joe should be crossed out.

These options are the less nutritious options.



# LESSON 5: LUNCH

LUNCH IS USUALLY A QUICK MEAL. CROSS OUT ALL OF THE UN-HEALTHY OPTIONS BELOW.



TUNA ON WHOLE WHEAT



CHICKEN NUGGETS



TURKEY ON WHOLE WHEAT  
WRAP



SPAGHETTI



NACHOS



SLOPPY JOE

## Lesson 6 KEY POINTS

Words that are *ORANGE* & italicized will be spoken.

Words in *BLUE* are actions you will complete.

- Food safety defined
- Hand washing and other hygiene
- Cross contamination

*“Today we are going to talk about food safety. Food safety means keeping our foods safe from germs. Now can anyone tell my why it is important to keep our food safe?”*

*(Allow children to name a few)*

*“We need to keep our foods safe so we can stay healthy. If we don’t keep our foods safe we can get sick. What is one important thing we should always do before we start cooking or handle raw food?”*

*(Allow children to guess the answer)*

*“We should always wash our hands before we begin to cook. Who knows how many seconds you should wash your hands?”*

*(Allow children to guess the answer)*

*“You should wash your hands for about 20 seconds. This is about as long as singing the chorus of the Happy Birthday song twice. Let’s pretend to wash our hands.”*

*(Show children to wash all parts of their hands; the backs of their hands, in between fingers, & up to their wrists.)*

*“When washing your hands you should make sure you wash not only the palms of your hands but the backs, in between your fingers & all the way up to your wrists.”*

*“Now we are going to talk about another part of food safety called cross contamination. Cross contamination is the transfer of germs & bacteria from one surface to another by our hands, utensils, or*

*food. To prevent cross contamination we should always remember to never put raw food and food we are ready to eat together. Raw foods are items like chicken, meat, cookie dough & eggs before it has been cooked. Ready to eat foods are those that have been cooked. We also need to remember to always keep utensils separated if you are using raw foods, and remember to wash your hands regularly while cooking.”*

*“Can anyone tell me what we should do with our leftover food once we are done eating it?”*

(Allow children to guess the answer)

*“We should always remember to put our food in the refrigerator once we are done eating it so it keeps our food safe & doesn’t make us sick. We need to remember to keep hot foods hot and cold foods cold.”*

(Hand out Lesson 6 worksheet for children to complete.)

**WORKSHEET ANSWER KEY:** 1. Matches with the picture of hands. 2. Matches with fruits and vegetables. 3. Matches with utensils picture. 4. Matches with refrigerator picture.

# LESSON 6: FOOD SAFETY

DRAW A LINE TO MATCH EACH SENTENCE WITH THE BEST MATCHING PICTURE.  
WHEN YOU ARE DONE COLOR THE PICTURE.

1. WASH YOUR \_\_\_\_\_ IN WARM, SOAPY  
WATER FOR 20 SECONDS BEFORE AND AFTER  
HANDLING FOOD.



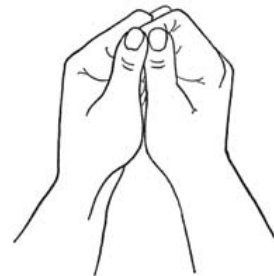
2. TO KEEP FOOD SAFE, KEEP \_\_\_\_\_ AWAY  
FROM RAW FOODS SUCH AS CHICKEN & MEAT.



3. WHEN COOKING REMEMBER TO USE \_\_\_\_\_  
FOR RAW FOODS ONLY WITH RAW FOODS.



4. AFTER YOU ARE DONE COOKING BE SURE TO PUT YOUR  
LEFTOVER FOOD IN A \_\_\_\_\_ TO KEEP SAFE.



## Lesson 7 KEY POINTS

Words that are *ORANGE* & italicized will be spoken.

Words in *BLUE* are actions you will complete.

- Snacks
- Nutritious options vs. Less Nutritious Options
- Moderation

*“Today we are going to talk about snacks. Snacks can be good for us if we are feeling a little hungry and are trying to wait until it is time to eat a meal again. Let’s talk about snacks, what are some of your favorite snacks?”*

*(Allow a few children to respond.)*

*“Let’s talk about a few nutritious snacks. What are some of your favorite nutritious snacks?”*

*(Allow a few children to respond.)*

*“A few nutritious snack options are things like a fruit salad, peanut butter on celery or low fat cheese.”*

*“What are a few less nutritious snack options?”*

*(Allow children to answer)*

*“A few less nutritious snack options are things like chocolate bars, pop, cake or ice cream. Can we still eat these things?”*

*(Allow a few children to answer)*

*“Yes we can still eat these kinds of snacks; we just need to remember to do so in moderation. Who know what moderation is?”*

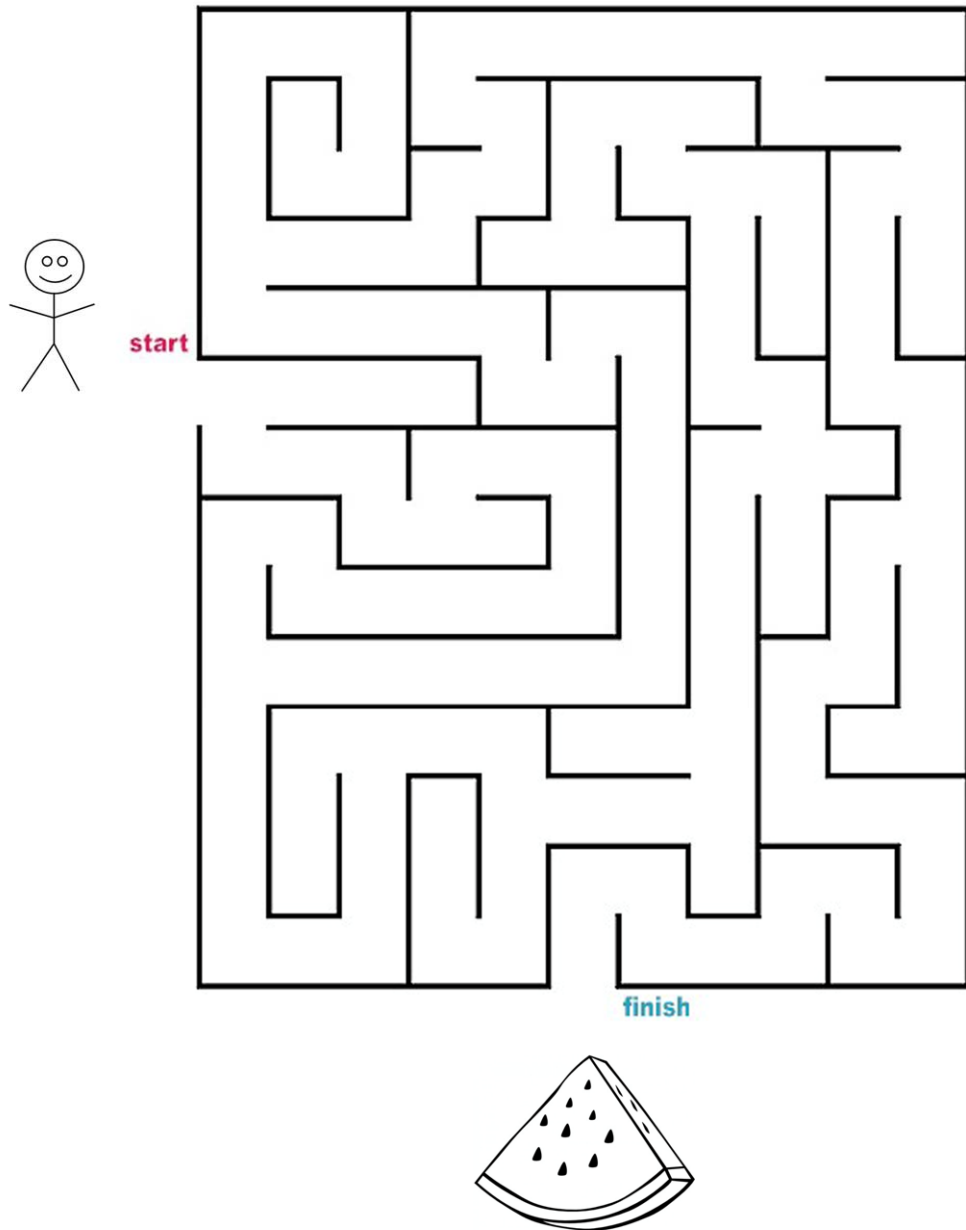
(Allow a few children to answer)

*“The word moderation means you eat certain things such as ice cream or cake in smaller amounts and only on special occasions.”*

(Hand out Lesson 7 worksheet for students to complete)

# LESSON 7: SNACK ATTACK

HELP FRED NAVIGATE THROUGH THE MAZE AND FIND THE NUTRITIOUS WATERMELON SNACK.



## Lesson 8 KEY POINTS

Words that are *ORANGE* & italicized will be spoken.

Words in *BLUE* are actions you will complete.

- Review food groups
- Define Variety
- Create a colorful meal

*“Today we are going to talk about dinner. Let’s go over the five food groups again, what are they again?”*

*(allow children to guess the answer)*

*“That’s right! The five food groups are: grains, fruits, vegetables, protein and dairy. Now let’s talk about variety. Who knows what variety means?”*

*(allow children to guess the answer)*

*“Variety means to have different things. When we say we should have a variety of things on our plate we are not only talking about food groups but about color as well. Let’s create a nutritious, colorful meal together. Let’s say we are going to have a baked pork chop for part of our dinner. What is something nutritious from the fruit group we can have with our pork chop that is colorful?”*

*(Allow children to answer. You can also suggest something like red baked apples or strawberries.)*

*“Let’s think of something else that’s colorful in the vegetable group. Who can name a nutritious vegetable of a different color other than the fruit?”*

*(Allow children to answer. You can also suggest something like green beans or carrots.)*



*“Now let’s find something nutritious and colorful from the dairy category? What is something that is colorful for the dairy?”*

(Allow children to answer. You can also suggest something like cheese.)

*“What is a healthy grain we can eat to finish off our nutritious meal?”*

(Allow children to answer. You can also suggest something like whole grain brown rice or a whole wheat roll.)

(After you have discussed a colorful meal with the group, hand out the Lesson 8 worksheet and have each child make a colorful meal on their “plate”. Children should have an item from each food group on their “plate”.)

## LESSON 8: COLORFUL DINNER

BELOW IS A PLATE & CUP, THINK OF A HEALTHY MEAL WITH A LOT OF COLOR THAT HAS ALL THE ELEMENTS OF HEALTHY EATING! DRAW YOUR PICTURE BELOW



## Lesson 9 KEY POINTS

Words that are *ORANGE* & italicized will be spoken.

Words in *BLUE* are actions you will complete.

- Review My Plate food groups
- Discuss how to make healthier choices

*“Today we are going to review healthy meal choices & how to make meals healthier. First, let’s go over the five food groups again, what are they?”*

(allow children to guess the answer)

*“That’s right! The five food groups are: grains, fruits, vegetables, protein and dairy. Now let’s talk about what we can do to make healthier choices.”*

(allow children to guess the answer)

*“Let’s review some healthy meal choices we can make. What is a healthy meal we can have for breakfast?”*

(Continue to do this for lunch, dinner and snack. An idea for a nutritious breakfast is oatmeal with fresh or dried fruit and nuts in it and a glass of milk. For lunch, a turkey wrap with low-fat cheese made with a whole wheat wrap with lettuce, tomatoes and with an apple on the side. For dinner, a nutritious option would be a spinach salad with strawberries with shredded cheese and a grilled piece of chicken with a whole grain roll. A nutritious snack option can be a fruit salad made from fresh or frozen fruit.)

*“Can you still eat at a fast food place and still be healthy?”*

(Allow children to answer)

*“Yes, you can still eat at a fast food place & be healthy. Just remember to do so less often & remember to make healthier choices. For instance if we order a pizza what is a way we can make it healthier?”*

(Allow children to answer)

*“By choosing to add more fruits and vegetable to our meals & eating low fat dairy and protein choices we can make healthier choices. Now you guys are going to complete a worksheet, you are going to fold*

*your paper in half twice so you have four separate boxes. Now you have a box for breakfast, lunch, dinner and snack. In each box write or draw a healthy meal option for each. ”*

(Hand out Lesson 9 worksheet)

ANSWER KEY: 1) SKIM    2) WHOLE WHEAT    3) FRUITS & VEGETABLES    4) SPARINGLY

## LESSON 9: CHOICES

FILL IN THE QUESTIONS BELOW WITH THE BEST AVAILABLE ANSWERS FROM THE WORK BANK.

**WORD BANK:**    FRUITS                      SKIM                      VEGETABLES  
                         WHOLE WHEAT                      USE IN MODERATION

1. YOU SHOULD REPLACE WHOLE MILK WITH FAT FREE OR \_\_\_\_\_ MILK.
2. INSTEAD OF USING WHITE BREAD YOU SHOULD USE \_\_\_\_\_ BREAD.
3. HALF YOUR PLATE SHOULD BE MADE UP OF 1/4 OF \_\_\_\_\_ AND A LITTLE OVER 1/4 OF \_\_\_\_\_.
4. YOU SHOULD EAT FOOD LIKE POP, CANDY AND CAKES \_\_\_\_\_.