

# Nutrition on a Mission

(Adapted from: "Heat or Eat"; www.knowhunger.org)

## Overview

Nutrition on a Mission is designed to help your students realize how hard it is for families in poverty and on food stamps to shop for food and stay on a budget. It is also designed to help students learn how to eat healthfully on a budget, which will be a critical skill for them to acquire as they move into adulthood. Students will be given nutritional guidelines and asked to buy groceries for a family of four on the poverty guidelines' budget.

## Goals

- Students will learn how to make smart nutritional choices on a budget.
- Students will learn how to budget groceries for one month.
- Students will learn some of the challenges that low-income families face.

## Materials

- Copies of *Grocery Store Budget Example (pages 5-6)*
- Copies of *Grocery Store Budget Handout (pages 7-11)*
- Copies of *What You Can Buy on Food Stamps (page 12)*
- *HHS Poverty Guidelines (page 13)*
- Copies of *Nutritional Guide Handout (pages 14-21)*
- Pens/pencils
- Access to a local grocery store (for prices and items). Depending on the store, this can be done online.

## **Instructions**

### Explaining the Activity and Pre-Activity Discussion

1. Teacher/Leader should explain to the students they will be making a grocery list and budget for one month, making a separate grocery list for each week of that month. You may choose to use poverty (p. 13) guidelines to limit the budget.
2. Nutritional Guideline sheet should be handed out and read over as a class or individually. The students must follow these guidelines when purchasing their groceries. (Please note that students will not actually buy the groceries, they will pick foods and write down the prices)
3. If students are unable to go on their own, you may go as a class to the grocery store; students can work individually or in pairs. Another option is to use grocery prices posted online. Some sample websites:  
[www.kroger.com](http://www.kroger.com)  
[www.winn-dixie.com](http://www.winn-dixie.com)  
[www.pigglywiggly.com](http://www.pigglywiggly.com)
4. Before completing the activity, have a discussion to see if any students have done grocery shopping before. Some questions to ask:
  - What kind of preparation might be useful before going to the grocery store?
  - Why might a list be useful? How would you design it?
  - How/ why do you think families on a budget have to think ahead about their groceries?
  - Do you think families on food stamps and in poverty face more challenges shopping for nutritional food on a budget?

### Completing the Activity and Discussion

1. Have the students fill out the handout at the grocery store and bring it back on the due date you assign.
2. Discuss the activity with students.
  - How much time did it take to complete the activity?
  - What was easy about it? What was more difficult?
  - Did you learn anything interesting?
  - Was it easy shopping on a budget AND shopping healthfully?
  - What were some challenges you found when choosing what to buy for your family?

- Was there anything interesting you found when comparing food choices with prices?

### **Variations**

- Students can work in “families” of four, as couples, or individually.
- Adjust the budgets for students so that some have a more generous budget while others must stick to the food stamps guidelines.
- Compare across larger and smaller “families”. (Note that food stamp benefits vary depending on the size of the family).

**Evaluation Questions  
Nutrition on a Mission**

County\_\_\_\_\_

Name of Program\_\_\_\_\_

Age: 9 10 11 12 13 14 15 16 17 18 19

\_\_\_Male                      \_\_\_Female

Where I live is considered to be      \_\_\_Urban \_\_\_Rural

Race: \_\_\_White \_\_\_African American \_\_\_Hispanic

      \_\_\_Native American    \_\_\_Asian    \_\_\_Other:

**Think about how much you understood different aspects about nutrition and poverty before and after doing the Nutrition on a Mission activity**

|   | <b>Before this Activity</b> |          |      |       | <b>After this Activity</b> |          |      |       |
|---|-----------------------------|----------|------|-------|----------------------------|----------|------|-------|
|   | Not At All                  | A Little | Some | A Lot | Not At All                 | A little | Some | A Lot |
| I understood that American families in poverty spend a greater % of their yearly income on food than an average American family | 1                           | 2        | 3    | 4     | 1                          | 2        | 3    | 4     |
| I understood the preparation involved in shopping for groceries on a budget   | 1                           | 2        | 3    | 4     | 1                          | 2        | 3    | 4     |
| I understood healthy food choices are not always more expensive   | 1                           | 2        | 3    | 4     | 1                          | 2        | 3    | 4     |
| I understood that families in poverty face greater challenges when budgeting for groceries                                      | 1                           | 2        | 3    | 4     | 1                          | 2        | 3    | 4     |
| I understood how food stamps can be used to buy groceries   | 1                           | 2        | 3    | 4     | 1                          | 2        | 3    | 4     |

# Grocery Store Budget Example

## Breakfast

| Food                         | Amount                      | Price* | Price/Serving | Budget (cont.) |
|------------------------------|-----------------------------|--------|---------------|----------------|
| whole wheat English muffins  | 6 muffins (6 servings)      | 1.69   | .28           |                |
| blue berry bagels            | 18 mini bagels (9 servings) | 5.00   | .56           |                |
| skim milk                    | 1 gallon (14 servings)      | 1.69   | .12           |                |
| cereal (generic)             | 2 boxes (12 servings)       | 4.00   | .33           |                |
| orange juice and apple juice | 2 jugs (20 servings)        | 6.00   | .15           |                |

## Lunches

| Food   | Amount                                    | Price | Price/Serving | Budget (cont.) |
|--|---|-------|---------------|----------------|
| strawberries                                   | 2 packages (4 servings per package)       | 2.99  | .75           |                |
| whole wheat bread (store brand)                | (3) 1 loaf = 12 sandwiches                | 1.89  | .16           |                |
| 100 Calorie Packs (snacks of chips or cookies) | 2 package for 5\$<br>12 packs per package | 5.00  | .21           |                |
| turkey lunch meat (store brand)                | (3 packages) 1 lb = 10 sandwiches         | 2.99  | .32           |                |

## Snacks

| Food                    | Amount                                | Price | Price/Serving | Budget (cont.) |
|-------------------------|---------------------------------------|-------|---------------|----------------|
| Smart Pop mini packs    | 2 boxes for 5\$<br>= (12 snacks bags) | 5.00  | .31           |                |
| reduced fat Wheat Thins | 2 boxes for 5\$<br>(15 servings)      | 5.00  | .17           |                |
|                         |                                       |       |               |                |

\*Prices will vary by location and fluctuations in the market

# Grocery Store Budget Example

## Dinner

| Food   | Amount            | Price* | Price/Serving | Budget |
|--|-------------------|--------|---------------|--------|
| Romaine Lettuce                              | 1 Bag             | 3.49   | .87           |        |
| Tilapia Fillets                              | 2 packages        | 2.87   | 1.44          |        |
| Broccoli                                     | 2 heads           | 2.18   | 1.09          |        |
| Canned black beans                           | 2 cans            | .69    | .17           |        |
| Frozen Corn                                  | 1 bag             | 1.16   | .15           |        |
| Salsa (16 oz)                                | 1 can             | 1.99   | .25           |        |
| Chicken Breasts (Frozen)                     | 1 bag = 6 breasts | 6.39   | .80           |        |
| Yellow Rice                                  | 1 bag             | .79    | .10           |        |
| Cumin  | 1 jar             | .99    |               |        |
| Garlic Minced                                | 1 jar             | 2.49   |               |        |
| Frozen Lemon pepper Chicken                  | 1 bag = 6 breasts | 6.39   | 1.07          |        |
| Brown Rice                                   | 2 lb bag          | 1.39   | .35           |        |
| Fresh Squash                                 | 2lb               | 1.69   | .42           |        |
| Campbell's Supper Bakes                      | 1 box (feeds 6)   | 2.99   | .75           |        |
| Chicken Breasts                              | 1 bag = 6 breasts | 6.39   | 1.07          |        |
| Chicken Breasts (4 left over from bags of 6) |                   |        | 1.07          |        |
| Red potatoes                                 | 5lb bag           | 3.99   | .99           |        |
| Green Beans                                  | 28 oz can         | .99    | .25           |        |
| Campbell's Chunky Soup                       | 4 cans for \$5.00 | \$5.00 | 1.25          |        |
| Bread  | 8 slices          | 1.89   | .16           |        |
| Fat Free America Cheese                      | 16 singles pack   | 3.19   | .20           |        |
| Butter                                       | 1.89 oz.          | 1.89   |               |        |
|  |                   |        |               |        |

\*Prices will vary by location and fluctuations in the market

# Grocery Store Budget Handout

**Directions:** - The point of this activity is for you to see how hard it is to buy healthful foods on a low-income budget.

1. Write out a grocery list for a family of four for one month (i.e., breakfast, lunch, dinner, and snacks everyday for four weeks), and go to the grocery store to price the items that you will need to purchase.
2. In the **Food** column – write down the food item you want to purchase.
3. In the **Amount** column – record how much of the item (e.g., 1 bag, 2 boxes) **AND** if you plan on using it for more than one meal, how many serving are in the box (e.g., there are 12 mini popcorn packs in 1 box).
4. In the **Price** column – record the price of how much 1 of that item will cost (e.g., if you buy 2 boxes of cereal only record how much ONE box costs).
5. In the **Price/Serving** column - record the price (remember to double or triple the price depending on how many of an item you get) and divide it by the amount of **SERVINGS** you bought (e.g., 1 bag of chicken has 6 breasts and is 6.39.  $6.39/6 = 1.07$  per breast.)
6. In the **Budget** column – subtract the **PRICE** column from the budget column amount above it. Refer to the example grocery store budget handout.

## Breakfast

| Food | Amount | Price | Price/Serving | Budget |
|------|--------|-------|---------------|--------|
|      |        |       |               |        |
|      |        |       |               |        |
|      |        |       |               |        |
|      |        |       |               |        |
|      |        |       |               |        |
|      |        |       |               |        |
|      |        |       |               |        |
|      |        |       |               |        |
|      |        |       |               |        |

# Grocery Store Budget Handout

Lunch

| <b>Food</b> | <b>Amount</b> | <b>Price</b> | <b>Price/Serving</b> | <b>Budget</b> |
|-------------|---------------|--------------|----------------------|---------------|
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |

## Grocery Store Budget Handout

### Dinner

| <b>Food</b> | <b>Amount</b> | <b>Price</b> | <b>Price/Serving</b> | <b>Budget</b> |
|-------------|---------------|--------------|----------------------|---------------|
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |

### Snacks

| <b>Food</b> | <b>Amount</b> | <b>Price</b> | <b>Price/Serving</b> | <b>Budget</b> |
|-------------|---------------|--------------|----------------------|---------------|
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |
|             |               |              |                      |               |

# Grocery Store Budget Handout

## Directions:

1. For this sheet you will see how much you spend on each person per meal for an entire week.
2. Take the Price/Serving column for each meal and add the individual servings for each person (ex: Dinner – Potatoes = .99, Chicken = 1.07, Green beans = .25.

.99

1.07

+ .25

---

\$2.31 per person for that dinner.

Breakfast #1:

Breakfast #2:

Breakfast #3:

Breakfast #4:

Breakfast #5:

Breakfast #6:

Breakfast #7:

Lunch #1:

Lunch #2:

Lunch #3:

Lunch #4:

Lunch #5:

Lunch #6:

Lunch #7:

Snack #1:

Snack #2:

Snack #3:

Snack #4:

Snack #5:

Snack #6:

Snack #7:

Dinner #1:

Dinner #2:

Dinner #3:

Dinner #4:

Dinner #5:

Dinner #6:

Dinner #7:

# Food Stamps Guidelines

Based on information from <http://www.fns.usda.gov/fsp/retailers/eligible.html>

Households **CAN** use food stamp benefits to buy:

- Foods for the household to eat, such as:
  - breads and cereals;
  - fruits and vegetables;
  - meats, fish and poultry; and
  - dairy products
  
- Seeds and plants which produce food for the household to eat.

Households **CANNOT** use food stamp benefits to buy:

- Beer, wine, liquor, cigarettes or tobacco;
- Any nonfood items, such as:
  - pet foods;
  - soaps, paper products; and
  - household supplies.
  
- Vitamins and medicines.
- Food that will be eaten in the store.
- Hot foods

In some areas, restaurants can be authorized to accept food stamp benefits from qualified homeless, elderly, or disabled people in exchange for low-cost meals. Food stamp benefits cannot be exchanged for cash.

## 2007 HHS Poverty Guidelines

| Persons<br>in Family or<br>Household  | 48<br>Contiguous<br>States and<br>D.C. | Alaska   | Hawaii   |
|---------------------------------------|--|----------|----------|
| 1                                     | \$10,210                               | \$12,770 | \$11,750 |
| 2                                     | 13,690                                 | 17,120   | 15,750   |
| 3                                     | 17,170                                 | 21,470   | 19,750   |
| 4                                     | 20,650                                 | 25,820   | 23,750   |
| 5                                     | 24,130                                 | 30,170   | 27,750   |
| 6                                     | 27,610                                 | 34,520   | 31,750   |
| 7                                     | 31,090                                 | 38,870   | 35,750   |
| 8                                     | 34,570                                 | 43,220   | 39,750   |
| For each<br>additional<br>person, add | 3,480                                  | 4,350    | 4,000    |

Since welfare reform, many families have jobs but many of them are faring worse than before because their jobs do not provide them with a livable wage. Many former welfare recipients lack food, stable housing and medical care. People experience episodic food insecurity as their benefits, such as food stamps, run out sooner. According to a Children’s Defense Fund and National Coalition for the Homeless 1998 joint study, among former welfare recipients who found jobs, 71% earned below the three-person poverty level (\$250 a week). More than half of client households receiving food from emergency food programs have an annual household income of less than \$10,000, according to the 2001 Second Harvest study.

Source: *Federal Register*, Vol. 72, No. 15, January 24, 2007, pp. 3147–3148

# Nutritional Guidelines Handout

Information from: <http://www.mypyramid.gov/pyramid/index.html>

## **What foods are in the grain group?**

---

Any food made from wheat, rice, oats, cornmeal, barley or another cereal grain is a grain product. Bread, pasta, oatmeal, breakfast cereals, tortillas, and grits are examples of grain products.

Grains are divided into 2 subgroups, **whole grains** and **refined grains**.

Whole grains contain the entire grain kernel -- the bran, germ, and endosperm. Examples include:

- whole-wheat flour
- bulgur (cracked wheat)
- oatmeal
- whole cornmeal
- brown rice

Refined grains have been milled, a process that removes the bran and germ. This is done to give grains a finer texture and improve their shelf life, but it also removes dietary fiber, iron, and many B vitamins. Some examples of refined grain products are:

- white flour
- degermed cornmeal
- white bread
- white rice

Most refined grains are *enriched*. This means certain B vitamins (thiamin, riboflavin, niacin, folic acid) and iron are added back after processing. Fiber is not added back to enriched grains. Check the ingredient list on refined grain products to make sure that the word "enriched" is included in the grain name. Some food products are made from mixtures of whole grains and refined grains.

Some commonly eaten grain products are:

**Whole grains:**

brown rice  
buckwheat  
bulgur (cracked wheat)  
oatmeal  
popcorn

*Ready-to-eat breakfast cereals:*

whole wheat cereal flakes  
muesli

whole grain barley  
whole grain cornmeal  
whole rye  
whole wheat bread  
whole wheat crackers  
whole wheat pasta  
whole wheat sandwich buns and rolls  
whole wheat tortillas  
wild rice

*Less common whole grains:*

amaranth  
millet  
quinoa  
sorghum  
triticale

**Refined grains:**

cornbread\*  
corn tortillas\*  
couscous\*  
crackers\*  
flour tortillas\*  
grits  
noodles\*

*Pasta\**

spaghetti  
macaroni

pitas\*  
pretzels

*Ready-to-eat breakfast cereals*

corn flakes

white bread  
white sandwich buns and rolls  
white rice

\*Most of these products are made from refined grains. Some are made from whole grains. Check the ingredient list for the words “whole grain” or “whole wheat” to decide if they are made from a whole grain. Some foods are made from a mixture of whole and refined grains.

Some grain products contain significant amounts of bran. Bran provides fiber, which is important for health. However, products with added bran or bran alone (e.g., oat bran) are not necessarily whole grain products.

## What foods are in the vegetable group?

---

Any vegetable or 100% vegetable juice counts as a member of the vegetable group. Vegetables may be raw or cooked; fresh, frozen, canned, or dried/dehydrated; and may be whole, cut-up, or mashed.

Vegetables are organized into 5 subgroups, based on their nutrient content. Some commonly eaten vegetables in each subgroup are:

### **Dark green vegetables**

bok choy  
broccoli  
collard greens  
dark green leafy lettuce  
kale  
mesclun (mixed salad leaves)  
mustard greens  
romaine lettuce  
spinach  
turnip greens  
watercress

### **Orange vegetables**

acorn squash  
butternut squash  
carrots  
hubbard squash  
pumpkin  
sweet potatoes

### **Dry beans and peas**

black beans  
black-eyed peas  
garbanzo beans (chickpeas)  
kidney beans  
lentils  
lima beans (mature)  
navy beans  
pinto beans  
soy beans  
split peas  
tofu (bean curd made from soybeans)  
white beans

### **Starchy vegetables**

corn  
green peas  
lima beans (green)  
potatoes

### **Other vegetables**

artichokes  
asparagus  
bean sprouts  
beets  
Brussels sprouts  
cabbage  
cauliflower  
celery  
cucumbers  
eggplant  
green beans  
green or red peppers  
iceberg (head) lettuce  
mushrooms  
okra  
onions  
parsnips  
tomatoes  
tomato juice  
vegetable juice  
turnips  
wax beans  
zucchini

## What foods are in the fruit group?

---

Any fruit or 100% fruit juice counts as part of the fruit group. Fruits may be fresh, canned, frozen, or dried, and may be whole, cut-up, or pureed. Some commonly eaten fruits are:

Apples

Apricots

Avocado

Bananas

Berries:

strawberries

blueberries

raspberries

cherries

Grapefruit

Grapes

Kiwi fruit

Lemons

Limes

Mangoes

Melons:

cantaloupe

honeydew

watermelon

Mixed fruits:

fruit cocktail

Nectarines

Oranges

Peaches

Pears

Papaya

Pineapple

Plums

Prunes

Raisins

Tangerines

100% Fruit juice:

orange

apple

grape

grapefruit

## What foods are included in the milk, yogurt, and cheese (milk) group?

---

All fluid milk products and many foods made from milk are considered part of this food group. Foods made from milk that retain their calcium content are part of the group, while foods made from milk that have little to no calcium, such as cream cheese, cream, and butter, are not. Most milk group choices should be fat-free or low-fat.

Some commonly eaten choices in the milk, yogurt, and cheese group are:

### **Milk\***

All fluid milk:  
fat-free (skim)  
low fat (1%)  
reduced fat (2%)  
whole milk

flavored milks:  
chocolate  
strawberry

lactose reduced milks  
lactose free milks

### **Milk-based desserts\***

Puddings made with milk  
ice milk  
frozen yogurt  
ice cream

### **Cheese\***

Hard natural cheeses:  
cheddar  
mozzarella  
Swiss  
parmesan

soft cheeses  
ricotta  
cottage cheese

processed cheeses  
American

### **Yogurt\***

All yogurt  
Fat-free  
low fat  
reduced fat  
whole milk yogurt

### **\*Selection Tips**

- Choose fat-free or low-fat milk, yogurt, and cheese.
- For those who are lactose intolerant, lactose-free and lower-lactose products are available. These include hard cheeses and yogurt. Also, enzyme preparations can be added to milk to lower the lactose content. Calcium-fortified foods and beverages such as soy beverages or orange juice may provide calcium, but may not provide the other nutrients found in milk and milk products.

## What foods are included in the meat, poultry, fish, dry beans, eggs, and nuts (meat & beans) group?

---

All foods made from meat, poultry, fish, dry beans or peas, eggs, nuts, and seeds are considered part of this group. Dry beans and peas are part of this group as well as the vegetable group. Most meat and poultry choices should be lean or low-fat. Fish, nuts, and seeds contain healthy oils, so choose these foods frequently instead of meat or poultry. Some commonly eaten choices in the Meat and Beans group, with selection tips, are:

### **Meats\***

#### *Lean cuts of:*

beef  
ham  
lamb  
pork  
veal

#### *Game meats:*

bison  
rabbit  
venison

#### *Lean ground meats:*

beef  
pork  
lamb

#### *Lean luncheon meats*

#### *Organ meats:*

liver  
giblets

### **Poultry\***

chicken  
duck  
goose  
turkey  
ground chicken and turkey

### **Eggs\***

chicken eggs  
duck eggs

### **Dry beans and peas:**

black beans  
black-eyed peas  
chickpeas (garbanzo beans)  
falafel  
kidney beans  
lentils  
lima beans (mature)  
navy beans  
pinto beans  
soy beans  
split peas  
tofu (bean curd made from soysea bass beans)  
white beans

#### *bean burgers:*

garden burgers  
veggie burgers

#### tempeh

texturized vegetable protein (TVP)

### **Nuts & seeds\***

almonds  
cashews  
hazelnuts (filberts)  
mixed nuts  
peanuts  
peanut butter  
pecans  
pistachios  
pumpkin seeds  
sesame seeds  
sunflower seeds

### **Fish\***

#### *Finfish such as:*

catfish  
cod  
flounder  
haddock  
halibut  
herring  
mackerel  
pollock  
porgy  
salmon  
snapper  
swordfish  
trout  
tuna

#### *Shellfish such as:*

clams  
crab  
crayfish  
lobster  
mussels  
octopus  
oysters  
scallops  
squid (calamari)  
shrimp

#### *Canned fish such as:*

anchovies  
clams  
tuna  
sardines

**\*Selection Tips**

Choose lean or low-fat meat and poultry.

---

Select fish rich in omega-3 fatty acids, such as salmon, trout, and herring, more often.

---

Liver and other organ meats are high in cholesterol. Egg yolks are also high in cholesterol, but egg whites are cholesterol-free.

---

Processed meats such as ham, sausage, frankfurters, and luncheon or deli meats have added sodium. Check the ingredient and Nutrition Facts label to help limit sodium intake. Fresh chicken, turkey, and pork that have been enhanced with a salt-containing solution also have added sodium. Check the product label for statements such as “self-basting” or “contains up to \_\_% of \_\_”, which mean that a sodium-containing solution has been added to the product.

## What are “oils”?

---

Oils are fats that are liquid at room temperature, like the vegetable oils used in cooking. Oils come from many different plants and from fish. Some common oils are:

- canola oil
- corn oil
- cottonseed oil
- olive oil
- safflower oil
- soybean oil
- sunflower oil
- salmon and cod oil (good sources of Omega 3 fatty acids)

Some oils are used mainly as flavorings, such as walnut oil and sesame oil. A number of foods are naturally high in oils, like:

- nuts
- olives
- some fish
- avocados

Foods that are mainly oil include mayonnaise, certain salad dressings, and soft (tub or squeeze) margarine with no *trans* fats. Check the Nutrition Facts label to find margarines with 0 grams of *trans* fat. Amounts of *trans* fat will be required on labels as of 2006. Many products already provide this information.

Most oils are high in monounsaturated or polyunsaturated fats, and low in saturated fats. Oils from plant sources (vegetable and nut oils) do not contain any cholesterol. In fact, no foods from plants sources contain cholesterol.

A few plant oils, however, including coconut oil and palm kernel oil, are high in saturated fats and for nutritional purposes should be considered to be solid fats.

Solid fats are fats that are solid at room temperature, like butter and shortening. Solid fats come from many animal foods and can be made from vegetable oils through a process called hydrogenation. Some common solid fats are:

- butter
- beef fat (tallow, suet)
- chicken fat
- pork fat (lard)
- stick margarine
- shortening