

Campus Kitchen at Gettysburg College
CKP Cargill Internship Nutrition Initiative
Fall 2008

GREEN GOODIES

A partnership with Lincoln Elementary
School After School Program

Christine Nemetz, Campus Kitchen Coordinator
Megan Crowe, CKP Cargill Intern

GREEN GOODIES Toolkit

The Campus Kitchen at Gettysburg College partnered with Lincoln Elementary School to implement the GREEN GOODIES program, as part of the LEAP (Lincoln Elementary Afterschool Programs) program. The program lasted six weeks during the fall semester. Each lesson was one and one half hours, and all but one included an educational aspect as well as a “mini field trip”. In order for these trips to happen, some planning beforehand had to take place. We contacted each partner with the date we hoped to attend and received confirmation in advance of the program. Our partners included the Painted Turtle Farm (organic farm on campus), the Campus Dining Hall, South Central Community Action Programs Food Pantry, and the Adams County Office for the Aging. One field trip that did not require any contact was to the local grocery store.

Seven students participated in the GREEN GOODIES program, as well as three college volunteers. Advertisement of the program and request for volunteers needed to be completed in advance as well. The materials for each lesson were created by the Nutrition Program Coordinator for the Campus Kitchen, who also taught the lessons each week. Collaboration was required between the program coordinator and the Coordinator of all LEAP programs at Lincoln Elementary School.

No formal evaluation was created by the Campus Kitchen, but in the future we hope to do so in order to gain a greater understanding of the students’ knowledge of the issues being explored as well as determine what they learned over the course of the program.

Lincoln Elementary Activities Program

L. E. A. P.

98 Lefever Street, Gettysburg, PA 17325, Phone 717-334-6254, ext. 7150 - Office
Donna Kluck 334-6254, ext 7222, dkluck@gettysburg.k12.pa.us

Proposal Form Fall 2008

Instructor's Name: Megan Crowe

Address: 300 North Washington St, Campus Box 549, Gettysburg, PA 17325

Email Address: crowme01@gettysburg.edu

Phone Number: 443 758 3171

Would you like this number available to students and parents? No

Day offered: *Tuesday (* 3:30 P. M. - 5:00 P. M)

Activity Title: Green Goodies: Farming. Food. Fun.

Brief description of activity:

This program will explore all aspects of food, including where it comes from, how it is made, and its effects on your health. Students will learn about farming and nutrition and the connection between the two, to gain a better understanding of how food affects the community and all aspects of their individual lives. The Campus Kitchen at Gettysburg College will bring together all aspects of the lessons into a unifying theme of food justice. Weekly meetings will include educational lessons as well as fieldtrips to local venues dealing with food.

Exploratory

Enrichment

Remediation

Tutoring

Objectives:

- Students will learn about the Campus Kitchens Project, a program that uses leftover unserved food from the dining hall, local restaurants, or farms to make nutritious meals to be redistributed to community agencies.
- Students will learn about MyPyramid and be able to apply this knowledge to their own eating habits.
- Students will visit the Gettysburg College student garden and learn about organic farming techniques and compare them with standard farming techniques.
- Students will learn about and/or practice harvesting or gleaning produce.
- Students will learn about what happens to food waste and how leftovers can be used by the Campus Kitchen.
- Students will determine the cost of food for a family and learn why sometimes non-nutritious food is more affordable.
- Students will consider where the food in a supermarket comes from and discuss the benefits of locally produced food.
- Students will learn about food insecurity issues and how the SCCAP (South Central Community Action Program) Food Pantry helps address them.
- Students will learn to plan a nutritious snack and will visit the senior center to share their snack and interact with elderly clients.

Outcomes:

Students will gain a deeper understanding of ways people in their community get food and where that food comes from. Students will learn about organic versus conventional farming. Students will also gain knowledge of nutrition and learn to prepare healthy snacks.

Lesson 1: Introduction to MyPyramid and Campus Kitchens

- Children will learn what the Campus Kitchen is and how it works using a worksheet/whiteboard activity.
- Children will learn what MyPyramid is and how to use it by analyzing what they ate for a day from a worksheet they completed before the first session.
- Children will participate in a craft activity to stencil their own apron/grocery bag.
- Snack: fruit and yogurt parfaits

Lesson 2: Where does food come from?

- Fieldtrip: Painted Turtle Farm (Gettysburg College student garden)
- Children will see organic growing in practice and learn about how this compares to standard farming techniques that use chemicals to control pests.
- Children will learn about the concept of gleaning as a food supply alternative and may have an opportunity to harvest produce from the farm.
- Children will participate in an interactive lesson focusing on the importance of fruits and vegetables.
- Snack: unusual fruits and vegetables, granola bars

Lesson 3: Where does leftover food and waste go?

- Fieldtrip: Gettysburg College Dining Hall
- Children will tour the dining hall and observe what happens to waste and ways in which waste is reduced.
- Children will learn the Campus Kitchen's role in using leftovers.
- Children will pickup leftover food from the Dining Hall and take it to the Campus Kitchen.
- Snack: pitas, hummus, veggies, grapes

Lesson 4: How much does supermarket food cost and where does it come from?

- Fieldtrip: Kennie's Market
- Children will price several predetermined items and locate where they were produced on a map.
- Children will learn about "food miles" and discuss the advantages of locally produced food.
- Children will determine food costs for a family by pricing three meals.
- Snack: granola bars and juice boxes

Lesson 5: What is available in our town to help people get food?

- Fieldtrip: SCCAP Food Pantry
- Children will discuss why it is more difficult for some people to eat healthy food (recap what they learned about food costs in the supermarket).
- Children will talk about fast food as it relates to food access issues.
- Children will visit the food pantry for a tour and may participate in a small service project.
- Children will plan a snack they will share with seniors next week.
- Snack: chicken wraps

Lesson 6: Sharing a meal with the community

- Fieldtrip: Senior Center
- Learn about how nutrition affects one's health
- Diet can help protect against disease
- Children prepare a snack to share with seniors at the senior center
- Snack: TBD

* Tuberculin test results are forthcoming.

Resources and materials needed:

Grant provides:

Lesson 1 supplies:

Fruit and yogurt parfait snack

Fruit (peaches, blueberries, etc) \$12.00

Yogurt \$10.00

Granola \$ 4.00

Grocery bag craft activity

Bags \$25.00

Paint/brushes \$10.00

Lesson 2 supplies:

Unusual fruits and vegetables \$15.00

Granola bars \$ 4.00

Lesson 3 supplies:

Pitas \$ 6.00

Hummus \$ 4.00

Vegetables, grapes \$ 6.00

Lesson 4 supplies:

Granola bars \$ 4.00

Juice boxes \$ 4.00

Lesson 5 supplies:

Chicken wraps

Grilled chicken strips \$10.00

Lettuce \$ 1.50

Cheese \$ 2.00

Tomatoes \$ 2.00

Lesson 6 supplies:

Snack TBD by students \$25.00

\$144.50

(NOTE: Some food items may be supplied by the Campus Kitchen at no charge, but we cannot guarantee the contents of our food supply day to day.)

Instructor provides: Instructor will purchase snack and craft supplies. Some snack supplies may be supplied at no cost.

Student provides: Students should wear closed toed shoes for all sessions.

Permission Slips needed for: (Are permission slips needs for all mini field trips?)

Facilities needed:

Room: Provided by Gettysburg College, in the Science Center, room number TBD

Equipment: school bus drop off and pickup

Maximum number of students: 10

Campus Kitchen at Gettysburg College
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GREEN GOODIES

Lesson 1

Christine Nemetz, Campus Kitchen Coordinator
Megan Crowe, CKP Cargill Intern

GREEN GOODIES

Farming. Food. Fun.

Lesson 1: Introduction to MyPyramid and Campus Kitchens

- Children will learn what the Campus Kitchen is and how it works using a worksheet/whiteboard activity.
- Children will learn about MyPyramid and nutrition, with focus being on food groups and servings.
- Snack: fruit and yogurt parfaits

Equipment

Large MyPyramid poster
Food cards
Measuring cups and spoons
Paper plate, bowls, cups

Supplies

For yogurt parfaits:
Strawberries – ¼ cup per person (cut up or frozen)
Blueberries – ¼ cup per person (cut up or frozen)
Fat-free vanilla yogurt – ½ cup per person
Low-fat granola – 1 T per person
Clear plastic cups (7 or 8 oz.)
½ and ¼ cup measures
Plastic spoons and napkins

Handouts

MyPyramid for Kids
Eat Smart with MyPyramid for Kids
Fruit and Yogurt Parfait Recipe

Preparation

Hang up MyPyramid poster
Cut up food cards
Cut up and wash strawberries and wash blueberries

GREEN GOODIES

Farming. Food. Fun.

Intro to nutrition discussion

What is nutrition? – The science of foods, including the nutrients and substances they contain, and their action, interaction, and balance in relation to health and disease.

Definition also includes the process by which the human organism ingests, digests, absorbs, transports, utilizes, and excretes food substances.

MyPyramid

Hang up large MyPyramid

Pass out blank individual pyramids

Explain that it is a visual representation to help us make healthful food choices

The food guide pyramid represents five food groups (plus oils)

Have each camper customize their pyramid

use page 3 in the lesson book to determine their required intake for each food group

1. Grains

a. What types of foods are found in the grain group?

(Kids name foods they think of)

i. Bread, rice, cereal, pasta, doughnuts, cookies, etc.

b. Grain group provides carbohydrates for energy

c. Depending on your gender and age, you need to eat 4.5-7 ounces of grains per day

i. What counts as one ounce?

1. One slice of bread

2. ½ cup of pasta or rice

3. 1 cup of cereal

4. ½ of an English muffin

2. Vegetables

a. What are some vegetables you like to eat?

b. Vegetables provide vitamins and minerals that our bodies need to remain healthy

c. Depending on your age and gender, you need to eat 1.5-3 cups of vegetables each day

i. Portions

1. 1 cup raw or cooked vegetables

a. 1 cup = 1 baked potato, 12 baby carrots

b. 2 cups of leafy green vegetables

ii. One cup is about the size of a baseball

iii. ½ cup is about the size of a hockey puck

3. Fruits

a. What are some fruits you like to eat?

- b. Fruits also provide vitamins and minerals that our bodies need to stay healthy
- c. Depending on your age and gender, you need to eat 1-2 cups of fruits each day
 - i. Portions
 - 1. $\frac{1}{2}$ cup of dried fruit
 - 2. 1 cup = one small apple, one large banana
 - 3. $\frac{3}{4}$ cup of fruit juice
 - ii. One medium piece of fruit is about the size of a baseball

4. Dairy

- a. What types of foods are found in the dairy group?
 - i. Milk, cheese, yogurt, ice cream
- b. Dairy provides nutrients that are important for strong, healthy bones and proper growth
- c. Depending on your age and gender, you need to consume 2-3 cups of dairy each day
 - i. Portions
 - 1. 8 ounce glass of low-fat or skim milk
 - 2. 1 cup plain yogurt
 - 3. 1 thin slice of cheese
 - 4. 3 domino-sized cubes of cheese

5. Meat and Beans

- a. What types of foods are found in the meat and beans group?
 - i. Beef, pork, poultry, fish, dry beans, eggs, nuts, peanut butter
- b. This group provides the body with protein to grow and stay strong
- c. Depending on your age and gender, you need to consume 3-5 ounces from this group each day
 - i. Portions
 - 1. 1 oz. (2-3 ounces is equal to the size of a deck of cards or your palm)
 - 2. One slice of lunch meat
 - 3. $\frac{1}{4}$ cup cooked dry beans
 - 4. 1 egg
 - 5. 1 tablespoon of peanut butter
- d. Common portions
 - i. 1 small steak = 3.5 to 4 ounces
 - ii. 1 small chicken breast = 3 ounces
 - iii. 1 small lean hamburger = 2 to 3 ounces
 - iv. 1 can tuna = 3 to 4 ounces

6. Oils

- a. What are oils?
 - i. Fats that are liquid at room temperature
 - ii. Oils come from many different plants and from fish

- b. What types of foods have oils in them?
 - i. Mayonnaise, salad dressings, margarine
 - ii. Not butter because it is solid at room temperature
- c. Dairy allowance of oils depends on age and gender and ranges from 4-5 teaspoons
 - i. Most people get their needed amount of oil in the foods they already eat

Pass out food cards and have students come up and place them into the correct group on the food guide pyramid.

Serving Sizes

What does one cup look like?

Measure out one cup of cereal and place into bowl

Measure out one cup of milk into cup

Measure out one cup of corn and place onto plate

What does one ounce look like?

Measure out ½ cup of rice

Show one slice of bread

Show one slice of lunch meat

Snack

Fruit and Yogurt Parfaits

1. Wash hands first!
2. Lay out fruit, yogurt, and granola in separate containers.
3. Have the students use plastic measuring cups to measure and layer yogurt, strawberries, blueberries, and granola into plastic cups.

Discuss

1. Parfaits combine many different food groups
2. Which food groups can you name in our fruit and yogurt parfaits?
 - i. Dairy, Grains (whole grain), Fruit
3. “This snack is high in protein, calcium, and vitamins A and C. Foods from the dairy group, like yogurt in this recipe, have the calcium needed to help children build strong bones.”
4. Discuss how easy it is for each child to prepare these at home for their own snacks.

Reflection

Reflect while eating snack

What did students learn today?

Look back at the menu you planned

How many servings from each food group did you include?

What is the Campus Kitchen?

FOOD

Restaurants

Dining hall

YOU (Consumer)

Too much was made

Throw Away

Campus Kitchen recovers extra food

Sends it back out into community

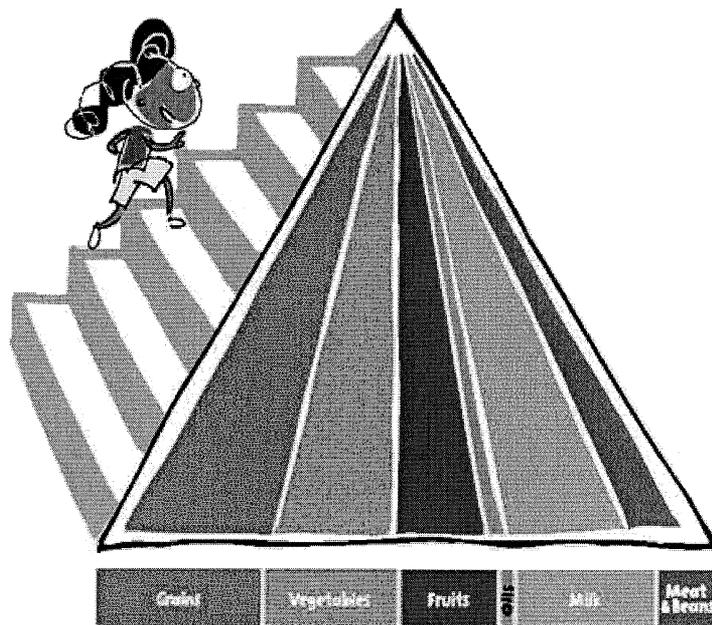
Reduces waste

Serves the needs of the community

MyPyramid

The food guide pyramid conveys four messages

1. Variety
 - a. Different food groups are color coded
 - b. Food guide pyramid represents five food groups (plus oils) – Grains, Vegetables, Fruits, Dairy, Meat and Beans, Oils
2. Proportionality
 - a. Some food groups you should eat more of than others
 - b. Indicated by the sizes of the wedges
 - c. Fats/oils is the smallest wedge
3. Moderation
 - a. Indicated by the narrowing of bands from bottom to top
 - b. There are good and bad foods in each food group
 - c. More nutrient-dense foods are found at the bottom, you should eat more of these
 - d. High sugar/high fat foods are found at the top, you should eat fewer of these
4. Physical Activity
 - a. Indicated by the person climbing the stairs
 - b. Children should get 60 minutes of exercise per day



The food guide pyramid represents five food groups (plus oils)

1. Grains

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 - i. Bread, rice, cereal, pasta, doughnuts, cookies, etc.
- b. The grain group provides carbohydrates for energy
- c. Depending on your gender and age, you need to eat 4.5-7 ounces of grains per day
 - i. What counts as one ounce?
 1. One slice of bread
 2. $\frac{1}{2}$ cup of pasta or rice
 3. 1 cup of cereal
 4. $\frac{1}{2}$ of an English muffin

2. Vegetables

- a. Vegetables provide vitamins and minerals that our bodies need to remain healthy
- b. Depending on your age and gender, you need to eat 1.5-3 cups of vegetables each day
 - i. Portions
 1. 1 cup raw or cooked vegetables
 2. 1 cup = 1 baked potato, 12 baby carrots
 3. 2 cups of leafy green vegetables
 - ii. One cup is about the size of a baseball
 - iii. $\frac{1}{2}$ cup is about the size of a hockey puck

3. Fruits

- a. Fruits also provide vitamins and minerals that our bodies need to stay healthy
- b. Depending on your age and gender, you need to eat 1-2 cups of fruits each day
 - i. Portions
 1. $\frac{1}{2}$ cup of dried fruit
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GREEN GOODIES

Farming. Food. Fun.

Grains:

One ounce of grains is equal to 1 slice of bread, 1 cup of cereal, or ½ cup of pasta or rice. Whole grains have the outer husk and the inner kernel, such as brown rice versus white.

Girls	Ages 4-8	Ages 9-13	Ages 14-19
Ounces of grains	4.5	5	6

Boys	Ages 4-8	Ages 9-13	Ages 14-19
Ounces of grains	4.5	6	7

Vegetables:

One cup of vegetables is equal to 12 baby carrots, 1 baked potato, or 2 large celery stalks.

Girls	Ages 4-8	Ages 9-13	Ages 14-19
Cups of vegetables	1.5	2	2.5

Boys	Ages 4-8	Ages 9-13	Ages 14-19
Cups of vegetables	1.5	2.5	3

Fruits:

One cup of fruit is equal to 1 small apple, 32 grapes, or 8 large strawberries.

Girls	Ages 4-8	Ages 9-13	Ages 14-19
Cups of fruit	1	1.5	1.5

Boys	Ages 4-8	Ages 9-13	Ages 14-19
Cups of fruit	1	1.5	2

Dairy:

One cup of dairy is equal to 1.5 oz. hard cheese, 2 oz. processed cheese, or 8 oz. yogurt.

Girls	Ages 4-8	Ages 9-13	Ages 14-19
Cups of dairy	2	3	3

Boys	Ages 4-8	Ages 9-13	Ages 14-19
Cups of dairy	2	3	3

Beans and Meat:

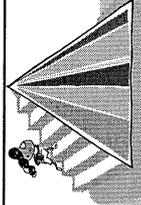
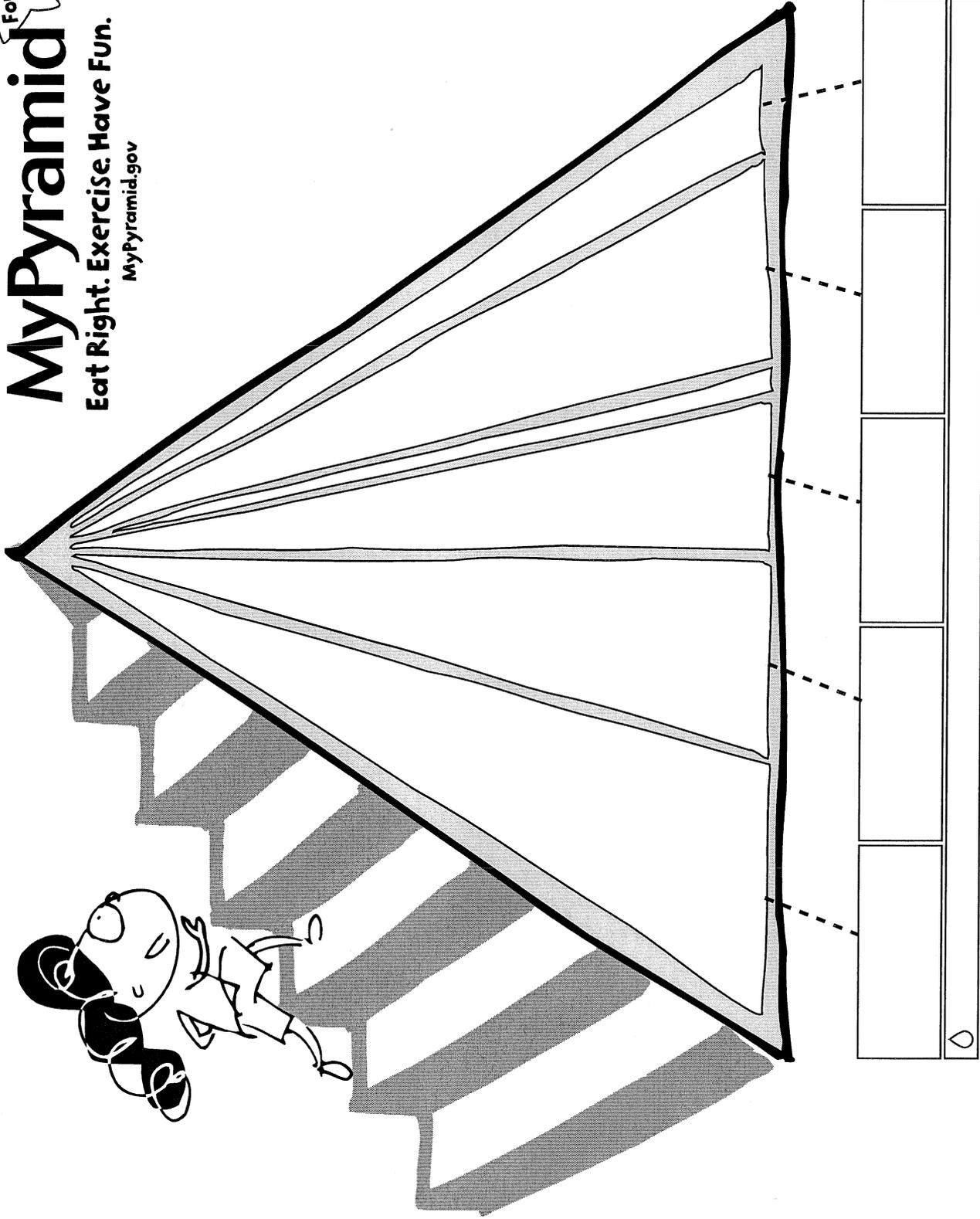
One ounce is equal to 1 egg, 1 sandwich slice of turkey, or 1 Tbsp. peanut butter.

Girls	Ages 4-8	Ages 9-13	Ages 14-19
Ounces of beans/meat	3-4	5	5

Boys	Ages 4-8	Ages 9-13	Ages 14-19
Ounces of beans/meat	3-4	5	6

For Kids
MyPyramid

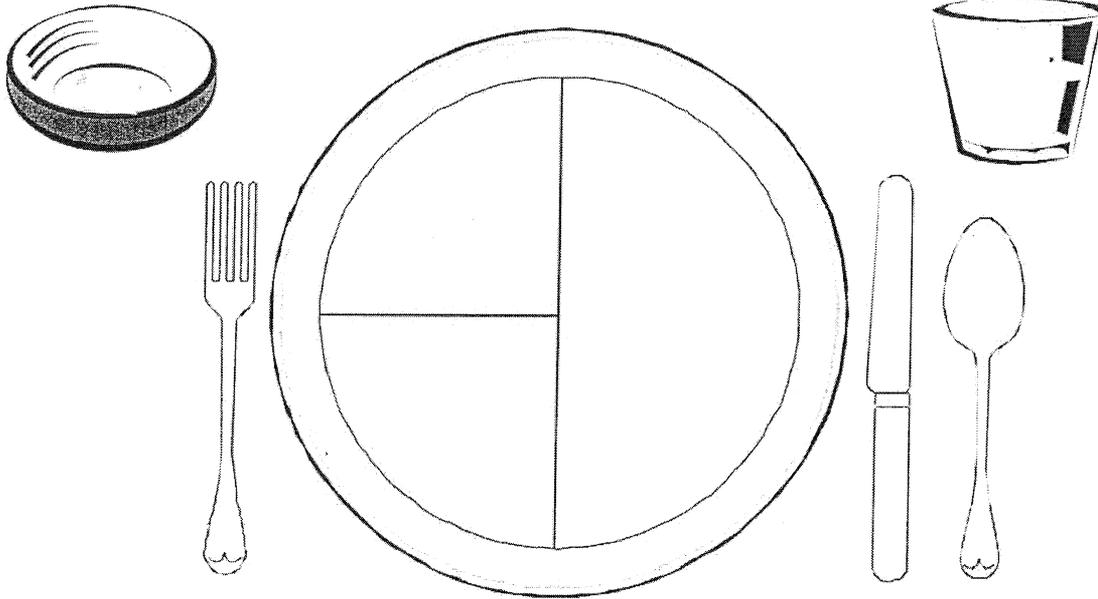
Eat Right. Exercise. Have Fun.
MyPyramid.gov



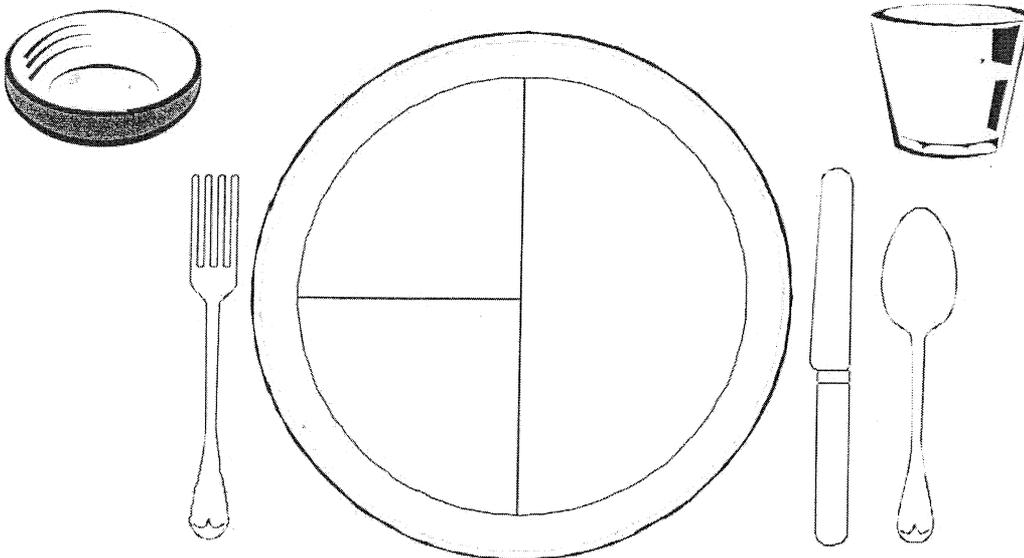
Making a Healthy Meal

Create meals for breakfast, lunch, a snack, and dinner using any food or beverage that you may normally eat.

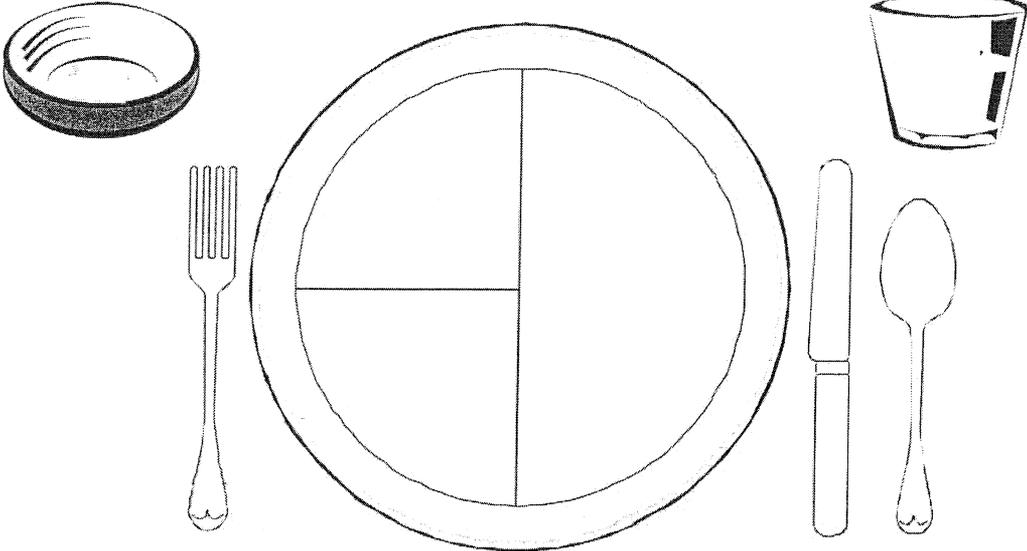
BREAKFAST



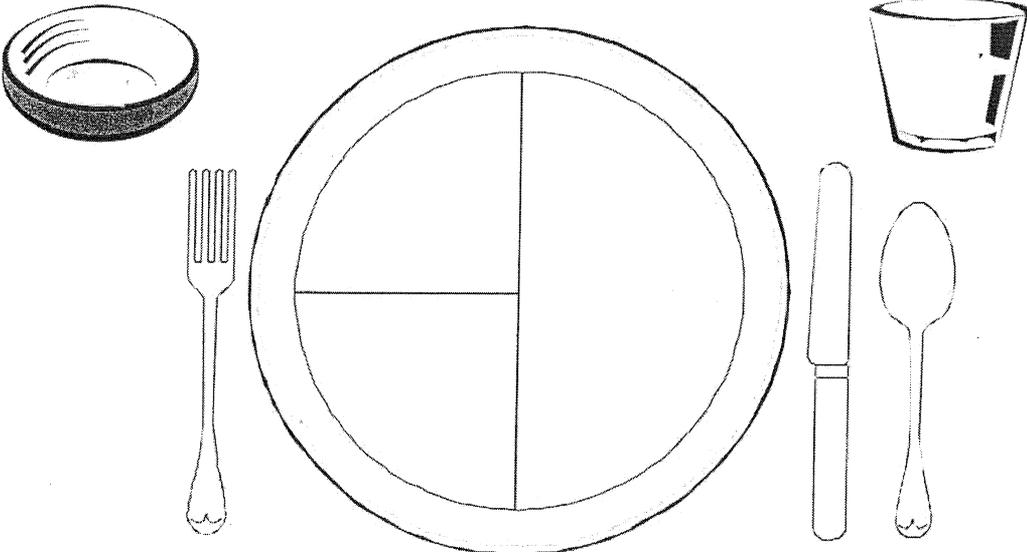
LUNCH



SNACK



DINNER



Campus Kitchen at Gettysburg College
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GREEN GOODIES

Lesson 2

Christine Nemetz, Campus Kitchen Coordinator
Megan Crowe, CKP Cargill Intern



Organic Farming vs. Pesticides

What is organic farming?

What are pesticides and herbicides?

Vitamins in Fruits and Vegetables

Vitamin	How it Keeps us Healthy	Vegetable Sources	Fruit Sources
Vitamin A	Helps in maintaining good eyesight. Keeps skin healthy.	Carrots, Broccoli, Red and Green Peppers, Pumpkin, Sweet Potatoes	Mango, Cantaloupe, Peaches, Apricots, Tomatoes
B Vitamins	Helps the body make energy.	Leafy green vegetables, peas, potatoes, mushrooms, corn, broccoli, carrots, green peppers	Some citrus fruits, bananas, avocado
Vitamin C	Help to fight diseases and keeps us healthy.	Broccoli, cabbage, green peppers, tomatoes	Citrus fruits, strawberries, tomatoes
Vitamin D	Strengthens bones and teeth.	Mushrooms	
Vitamin E	Protects our cells from damage.	Leafy green vegetables, asparagus, olives	Avocado
Vitamin K	Important in blood clotting.	Leafy green vegetables, cauliflower, broccoli, brussel sprouts	Avocado, kiwi

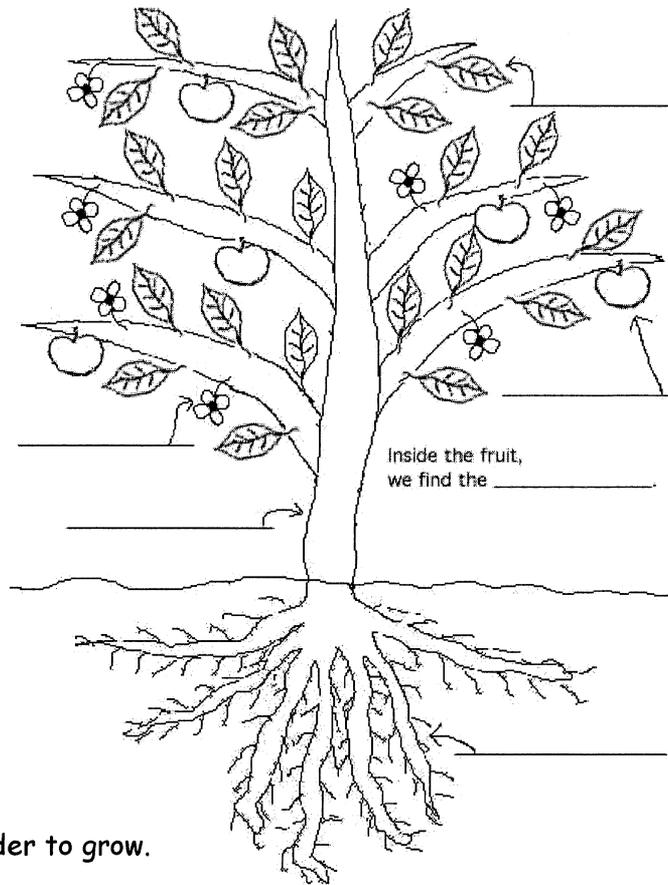
What are some vegetables you saw in the garden that contain:

- Vitamin A _____
- B Vitamins _____
- Vitamin C _____
- Vitamin E _____
- Vitamin K _____

PLANTS

Plants have 6 basic parts.

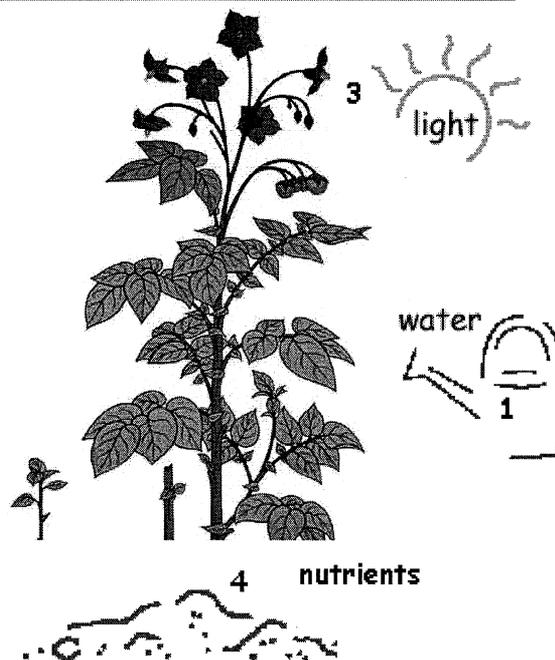
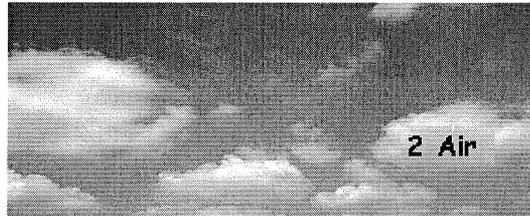
1. Root
2. Stem
3. Leaf
4. Flower
5. Fruit
6. Seeds



How do plants grow?

Plants require a few things in order to grow.

1. Water
2. Air (carbon dioxide and oxygen)
3. Sunlight
4. Nutrients (in soil)



Campus Kitchen at Gettysburg College
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GREEN GOODIES

Lesson 3

Christine Nemetz, Campus Kitchen Coordinator
Megan Crowe, CKP Cargill Intern

WHAT DOES THE DINING HALL AT GETTYSBURG COLLEGE
DO TO HELP REDUCE FOOD WASTE?

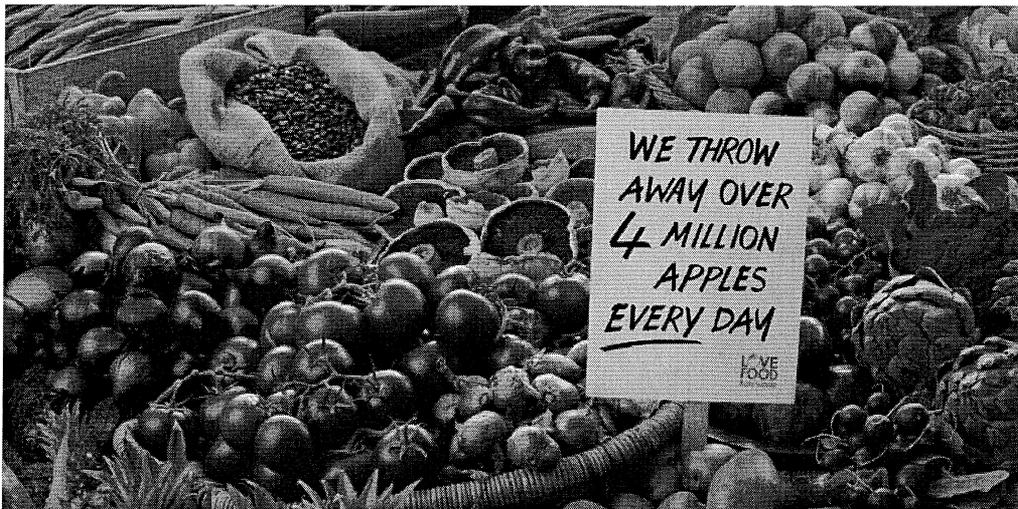


WHERE DOES OUR FOOD GO WHEN WE DON'T EAT IT?

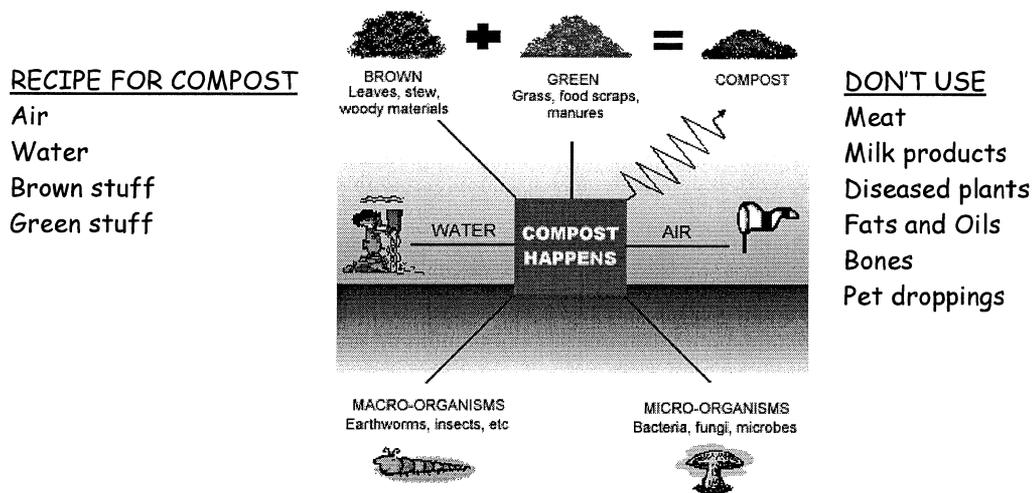
Facts About Food Waste



1. **FOOD WASTE INCLUDES** uneaten portions of meals and trimmings from food preparation activities in kitchens, restaurants and cafeterias. Food waste is the third-largest component of generated waste by weight.
2. According to the USDA (United States Department of Agriculture), just over a quarter of the country's food -- about 25.9 million tons -- gets thrown in the garbage can every year.
3. If just 5 percent of Americans' food scraps were recovered it would represent one day's worth of food for 4 million people.
4. It costs the U.S. around \$1 billion every year just to dispose of all its food waste, according to the EPA (Environmental Protection Agency).
5. Methane, the gas food waste produces, traps 23 times as much heat in the atmosphere as the same amount of CO₂, the EPA says.
6. Landfills account for 34 percent of all methane emissions in the U.S.
7. The University of Arizona believes that if Americans cut their food waste in half, it would reduce the country's environmental impact by 25 percent.



Composting: How do we make compost?



Brown stuff

- ▶ Dead, dried plant parts like leaves and pine needles
- ▶ High in the element carbon



Green Stuff

- ▶ Fresh, living parts like grass clippings, kitchen vegetable scraps, weeds and other plants
- ▶ High in the element nitrogen



Don't use meat, milk products because pets and other animals may try to dig them up out of your compost bin. Also don't use diseased garden plants. They can spread disease back into the garden later when you use the compost.

How to build your compost

1. **Add leaves!**

It is easiest to build our compost bin in layers of ingredients. Start with the brown stuff by spreading a layer of leaves or pine needles about 6 inches thick.

2. **Add carbon sources (brown stuff).**

This includes dried leaves, pine needles, sawdust, and newspaper.

3. **Add nitrogen sources (green stuff).**

This includes grass clippings, food scraps, and coffee grounds.

4. **Shovel the soil.**

Sprinkle a shovelful of soil to add microorganisms to the bin.

5. **Water.**

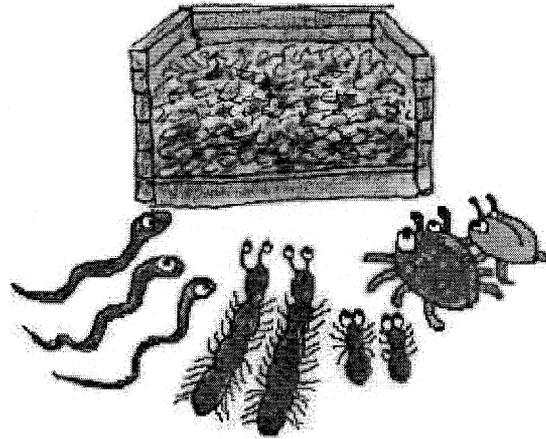
It is important to water each layer as you build your compost.

6. **Repeat.**

Continue building layers until your compost bin is full.

CREEPY CRITTERS

Now tiny microorganisms (that you cannot see without a microscope) go to work breaking down the organic matter into compost. Later, as the compost cools down, you may see larger organisms such as millipedes, sowbugs, earthworms and others. Compost is teeming with living things!



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GREEN GOODIES

Lesson 4

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GREEN GOODIES: Farming. Food. Fun.

Supermarket trip!

Today we are visiting Kennie's Market to see how much food costs to feed 4 people for 1 day with healthy meals and not so healthy meals. We will also see where some fruits come from. Find each item on your list and write down its price!

Healthy Breakfast	Price
4 bananas	
<i>Where are the bananas from?</i>	
4 single serve yogurts	
1 small bottle of maple syrup	
Small container of I can't believe it's not butter (or other butter substitute)	
1 box whole wheat Pancake mix	
½ gallon 100% orange juice (not from concentrate)	

Not as Healthy Breakfast	Price
1 box Pop Tarts	
1 pound bacon	
1 dozen eggs	
1 gallon Sunny D	



GREEN GOODIES: Farming. Food. Fun.

Supermarket trip!

Today we are visiting Kennie’s Market to see how much food costs to feed 4 people for 1 day with healthy meals and not so healthy meals. We will also see where some fruits come from. Find each item on your list and write down its price!

Healthy Lunch	Price
1 pound of sliced turkey	
1 loaf multi grain bread	
1 jar or bottle of mustard	
4 apples	
<i>Look at 3 different kinds of apples. Where are they from?</i>	
1 bag whole grain pretzels	

Not as Healthy Lunch	Price
1 Lunchable	
1 small container marshmallow fluff	
1 loaf white bread	
6 pack pudding snack packs	
1 bag potato chips	



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Healthy Dinner	Price
1 gallon milk	
1 bag of salad greens (dressing included)	
2 tomatoes for salad	
1 head of broccoli	
1 box long grain or brown rice	
1 package (4 breasts) boneless, skinless chicken breast	
1 quart strawberries	
<i>Where are the strawberries from?</i>	

Not as Healthy Dinner	Price
1 large frozen pizza with pepperoni or sausage	
1 box frozen hamburger patties (8 total)	
1 pack of hamburger buns (8 total)	
1 can corn	
1 bag chocolate chip cookies	
1 two liter bottle of soda	

Wrapup in SC 153

Write on whiteboard, have the kids use calculators to find the answers:

Healthy Meals

Breakfast price \$?.??

Lunch price \$?.??

Dinner price \$?.??

Total Price \$?.??

Not so healthy Meals

Breakfast price \$?.??

Lunch price \$?.??

Dinner price \$?.??

Total Price \$?.??

Looking at the food prices, why do you think some people don't eat as healthy as others?

Bottom line: healthy foods can sometimes cost more, but if you read nutrition labels and look for foods low in fat and sodium (salt), and eat plenty of fruit and vegetables, you can still eat healthy and not spend as much.

Pull up a world map on the computer and projector:

<http://www.daftlogic.com/projects-google-maps-distance-calculator.htm>

Write up the chart below and fill in with information from the kids. Search the map to find the miles (use the quick find to mark the locations and then zoom out so they can see how far some of them really are). Clear locations using the buttons below the map. Note: all fruit may not have locations specified, in this

case, use the probable locations (some of the largest producers in the world) and their miles are written in italics in the table.

Fruit	Where is it from?	Miles from Gettysburg
Bananas	<i>India</i>	<i>8000</i>
Strawberries	<i>California</i>	<i>2250</i>
Apples (1st variety)	<i>China</i>	<i>7200</i>
Apples (2nd variety)	<i>Washington state</i>	<i>2200</i>
Apples (3rd variety)	<i>Gettysburg</i>	<i>0</i>

How do these foods get to the supermarket?

What do planes and trucks run on?

What does using more gas do to the environment?

Why might it be better for the environment to eat food that is grown nearby if you can?

Bottom line: Food travels to our supermarkets on planes, trains, and buses, using fuel. Using fuel releases carbon into the environment which causes global warming. In the future, global warming could cause plants and animals to die due to changes in their habitats and could also cause floods in some places where people live. If we get food that has been transported shorter distances, we can help slow down global warming.



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Healthy Breakfast	Price
4 bananas	
<i>Where are the bananas from?</i>	
4 single serve yogurts	
1 small bottle of maple syrup	
Small container of I can't believe it's not butter (or other butter substitute)	
1 box whole wheat Pancake mix	
½ gallon 100% orange juice (not from concentrate)	

Not as Healthy Breakfast	Price
1 box Pop Tarts	
1 pound bacon	
1 dozen eggs	
1 gallon Sunny D	



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1 bag chocolate chip cookies	
1 two liter bottle of soda	

Use a calculator to calculate prices.

Healthy Meals

Breakfast price	\$
Lunch price	\$
<u>Dinner price</u>	<u>\$</u>
Total Price	\$

Not so healthy Meals

Breakfast price	\$
Lunch price	\$
<u>Dinner price</u>	<u>\$</u>
Total Price	\$

Looking at the food prices, why do you think some people don't eat as healthy as others?

Fruit	Where is it from?	Miles from Gettysburg
Bananas		
Strawberries		
Apples (1st variety)		
Apples (2nd variety)		
Apples (3rd variety)		

How do these foods get to the supermarket?

What do planes and trucks run on?

What does using more gas do to the environment?

Why might it be better for the environment to eat food that is grown nearby if you can?

Campus Kitchen at Gettysburg College
CKP Cargill Internship Nutrition Initiative

GREEN GOODIES

Lesson 5

Christine Nemetz, Campus Kitchen Coordinator
Megan Crowe, CKP Cargill Intern

Last week we learned that it costs more money to eat healthy foods. Why do you think that some people do not eat healthfully?

Costs too much money, cannot afford. Some people work a lot and do not have the time to make healthy meals.

What are some alternatives families have to healthy foods?

Food Pantry – good

Fast Food – bad

Even though fast food provides a cheap, quick alternative to healthy meals, there are negative health effects associated with eating fast food. Why is fast food so unhealthy?

Fast food has very little nutritional value, because of all of the preservatives used in the processing of the food

Most fast food choices tend to be high in fat, sodium, sugar, and/or calories

Fast food choices are usually lower in fiber and vitamins, primarily due to the lack of fruits and vegetables on the menu

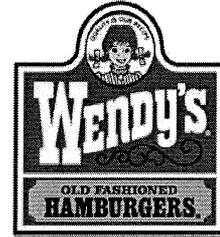
Now, lets play a game to see just how unhealthy fast food is for your health.

Split up into 2 teams, fill in blanks with fat.

Then have kids measure out amounts of fat in fast food items.

What are some things that you guys have learned so far throughout all of our lessons?

Eating Out and Fast Food



Eating out has become a part of our everyday lifestyle. According to the National Restaurant Association, Americans (age 8 and over) eat out four times a week on average – or about 200 meals a year. The more you eat away from home, the greater the impact on your overall daily food intake.

Why do families prefer fast food?

- Families with busy schedules value convenience. They find it much easier to pick up fast food for breakfast, lunch, or dinner, rather than actually taking the time to prepare a nutritious meal.
- Fast food is usually very tasty.
- Fast Food is usually very inexpensive.

Why is fast food considered so unhealthy?

- Fast food has very little nutritional value, because of all of the preservatives used in the processing of the food.
- Most fast food choices tend to be high in fat, sodium, sugar, and/or calories.
- Fast food choices are usually lower in fiber and vitamins, primarily due to the lack of fruits and vegetables on the menu.

Even though fast food provides a cheap, quick alternative to healthy meals, there are negative health effects associated with eating fast food.

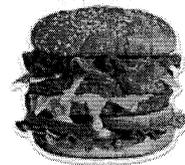
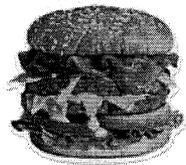
What are some of the health risks associated with eating fast food on a regular basis?

- 1.
- 2.
- 3.
- 4.
- 5.

Measuring the Fat

Match the fast food item with the correct amount of fat it contains. Choose the correct amount of fat from the FAT BOX.

Fast food item	Amount of fat
McDonald's™ Big Mac with Cheese	
Burger King™ Cheeseburger	
McDonald's™ Filet-O-Fish sandwich	
McDonald's™ 10 piece Chicken McNuggets	
McDonald's™ medium french fries	
McDonald's™ small french fries	
Pizza Hut™ Personal Pan cheese pizza	
Wendy's™ Chicken Caesar salad w/ 2 pkts. of Caesar dressing	
Wendy's™ Large chili	
Wendy's™ Small frosty	
Burger King™ Whopper	
Wendy's™ side salad w/ reduced fat ranch dressing	



FAT BOX

20 g	16 g	7 g	29 g	24 g	8 g
13 g	39 g	24 g	9 g	26 g	18 g

Campus Kitchen at Gettysburg College
CKP Cargill Internship Nutrition Initiative

GREEN GOODIES

Lesson 6

Christine Nemetz, Campus Kitchen Coordinator
Megan Crowe, CKP Cargill Intern

Nutrition for the Elderly

Older people are normally less active and therefore need to consume fewer amounts of calories. However, they still require the same amounts of nutrients, perhaps even more. Because of this they need to look for nutrient-dense foods (those foods which contain a high amount of nutrients with fewer calories).

Consuming the right number of calories for your level of physical activity helps you control your weight, too. Extra weight is a concern for older adults because it can increase the risk for diseases such as type 2 diabetes and heart disease and can increase joint problems. Eating more calories than your body needs for your activity level will lead to extra pounds.

What are some differences you can find between the MyPyramid for Kids and the MyPyramid for the Elderly?

1. They only require 2 ounces of protein a day. Kids require 5.
2. They need to eat 3 cups of vegetables. Kids need 2 ½.
3. They need to eat 2 cups of fruit. Kids need 1 ½.

There are three specific nutrients that elderly people need to consume more of in their diets.

1. **Calcium** – Calcium is important for maintaining strong teeth and bones. As we age, our bones become more fragile, making the elderly more susceptible to osteoporosis and bone injuries. Consuming larger amounts of calcium in the diet aids in keeping bones strong and preventing these problems.
 - a. How can we get more calcium in our diets?
 - i. Milk (especially fat-free) and other dairy products
2. **Vitamin D** – Vitamin D is important for calcium absorption. Someone can be taking in enough calcium but might not have enough Vitamin D in their diet to effectively absorb that calcium. Which makes it seem like they aren't getting enough calcium, and leads to weakening of bones and teeth.
 - a. How can we get more Vitamin D in our diets?
 - i. Sunlight is our best source of Vitamin D!
 - ii. Many foods are fortified with Vitamin D, like milk and cereals/other grain products. Salmon and other fish are also good sources of Vitamin D.
3. **Vitamin B12** – Vitamin B12 is important in maintaining healthy nerves and red blood cells. Deficiency can result from being unable to use Vitamin B12. This can lead to anemia, a condition in which the body organs do not get enough oxygen, and can die.
 - a. How can we get more Vitamin B12 in our diets?

- i. Meat, dairy products, and eggs are the best sources.

Nutrition for the Elderly

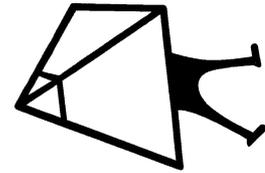
What are some differences you can find between the MyPyramid for Kids and the MyPyramid for the Elderly?

- 1.
- 2.
- 3.

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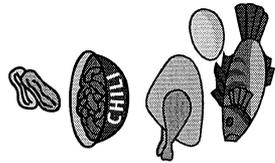
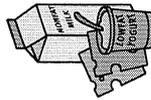
Food Guide Pyramid for Older Adults



The Tufts University Food Guide Pyramid for Older Adults is geared to help people 50 years or older — and especially those 70 and older — eat a healthful diet. As you age, you need less food to maintain your weight. However, your need for vitamins and minerals may stay the same or even increase. That's why it is important to choose a variety of nutrient-rich foods everyday. And remember to include physical activity such as walking, climbing stairs or yard work as part of your daily routine.

Make the Pyramid Work for You!

FOOD GROUP	RECOMMENDATIONS	EXAMPLES OF SERVING SIZES
Low- and Nonfat Dairy Products	Eat or drink 3 or more servings of low- or nonfat dairy products. If you have trouble digesting milk products, try lactose-free dairy products, or add lactase to milk.	1 cup low- or nonfat milk or yogurt 1 1/2 oz lowfat cheese
Dry Beans and Nuts	Eat 2 or more servings of these protein-rich foods.	1–1 1/2 cup cooked lentils or dry beans 1 1/2 cup chili 4 Tbsp peanut butter
Fish, Poultry, Lean Meat, and Eggs	Beans are a good source of fiber, protein and other nutrients. Choose fish, skinless poultry, lean meat or eggs.	2 – 3 oz. fish, skinless poultry or lean meat—baked, broiled or grilled 1/2 cup canned tuna 1 egg or 1/4 cup egg substitute



UNIQUE NUTRIENT NEEDS

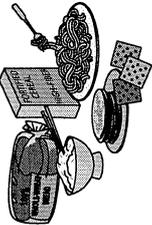
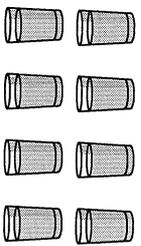


The flag at the top of the pyramid signals special consideration for calcium, vitamin D and vitamin B12. You need higher levels of calcium and vitamin D to keep bones strong. Nonfat or lowfat milk provide an excellent source of calcium and vitamin D. Nonfat dairy products offer the best sources of calcium. Because many older adults cannot efficiently use the vitamin B12 that is found in animal foods, vitamin B12-fortified foods such as breakfast cereals or supplements are better absorbed. Check with your physician or health care provider to find out if you need supplements. Also, contact your health care provider when your food choices are limited over a period of time due to illness, chewing problems, lack of appetite or inability to shop or prepare food.

Here is a list of how much calcium, vitamin D and vitamin B12 is needed each day for adults over 50:

- **Calcium** — 1,200 milligrams (mg)
- **Vitamin D** — 400 International Units (IU) for adults 51–70 and 600 IU for those over 70. Do not exceed these recommendations.
- **Vitamin B12** — 2.4 micrograms (mcg)

Make the Pyramid Work for You, cont.

FOOD GROUP	RECOMMENDATIONS	EXAMPLES OF SERVING SIZES
Bright-Colored Vegetables 	Eat 3 or more servings of bright-colored fresh, frozen, or canned vegetables. Look for dark green, red, orange and/or yellow vegetables for best nutrients.	1 cup romaine lettuce 1/2 cup winter squash or sweet potato 3/4 cup 100% vegetable juice 1/2 cup carrots 1/2 cup cooked spinach
Deep-Colored Fruit 	Eat 2 or more servings of fresh, frozen, dried, or canned fruit packed in juice. Those with deep colors typically have more nutrients. Choose 100% fruit juice. Juices fortified with calcium provide a non-dairy calcium source.	1 medium peach or banana 1/2 cup berries or sliced melon 1/4 cup dried apricots or raisins 3/4 cup 100% orange juice
Whole, Enriched and Fortified Grains and Cereals 	Eat 6 or more servings of high-fiber, fortified, or whole grains such as brown rice, whole-wheat pasta, and bran cereal.	1/2 cup raisin bran or oatmeal 1 slice whole-wheat bread 1/2 cup cooked enriched pasta or rice
Water/Liquids 	Consume eight, 8-ounce glasses of water or beverages such as fruit or vegetable juice, milk, reduced sodium soup, tea or coffee each day.	8 oz. water 8 oz. tea or coffee 8 oz. reduced sodium soup 8 oz. nonfat milk

TIPS FOR HEALTHFUL EATING

USE SPARINGLY items that appear at the top of the pyramid.

SUGAR adds calories, but not nutrients to the diet. Limit foods and beverages with added sugar.

SATURATED AND TRANS FATS raise levels of low-density lipoprotein (LDL), the so called bad cholesterol. Meat and full fat dairy products contain saturated fat. *Trans* fats are found in traditional stick margarines, shortenings and hydrogenated vegetable oils and foods made with these fats. Choose vegetable oils such as canola, soybean, corn and olive oil. Use tub margarine instead of butter.

SALT raises blood pressure in some people. Prepare foods with less salt/sodium and choose reduced sodium soups and frozen entrees.

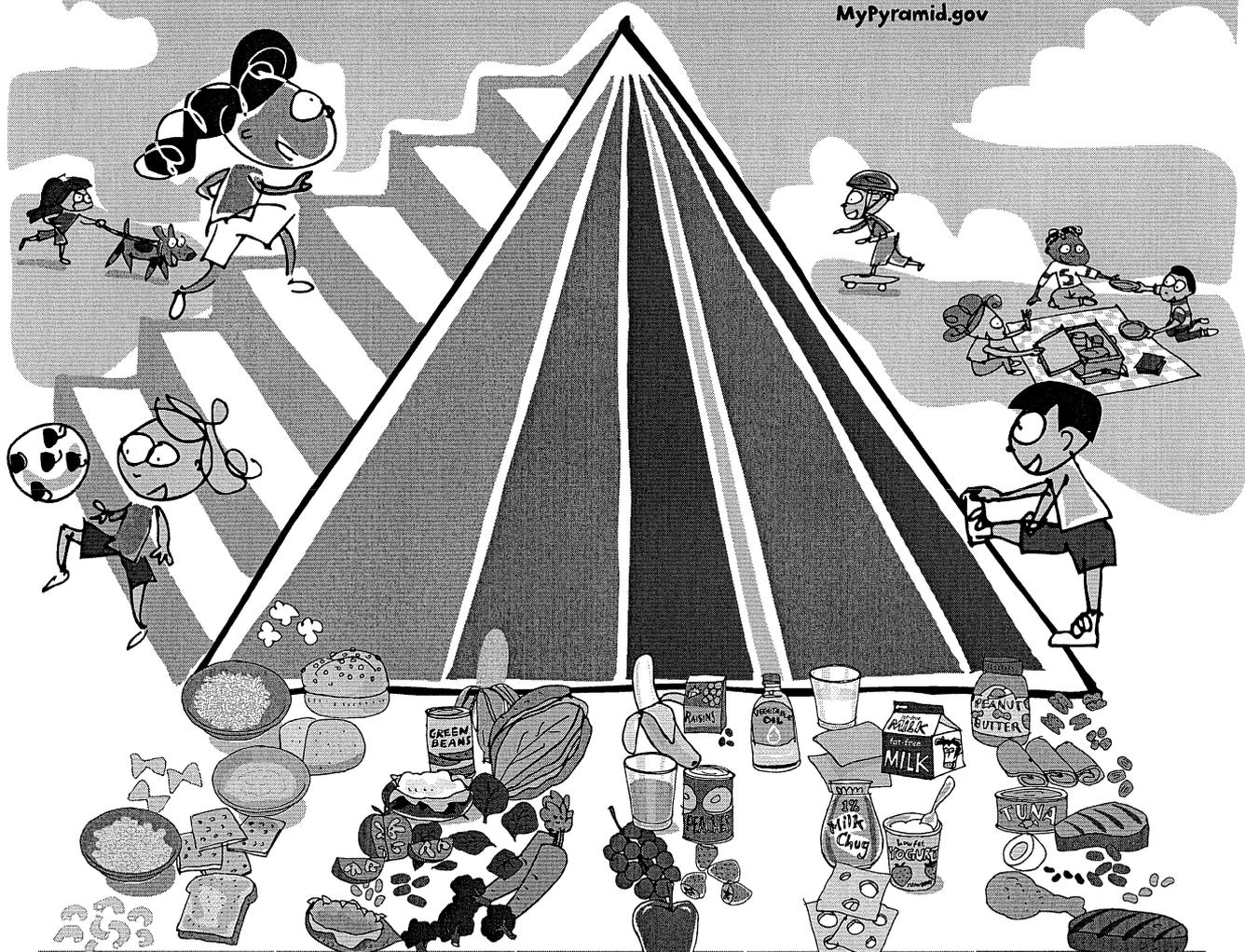
HIGH-FIBER foods help to promote regularity. Dry beans, fruits, vegetables, whole grains and cereals, and nuts offer high-fiber choices. Be sure to drink more water if you increase your fiber intake.

WATER/LIQUIDS are needed everyday. As you get older you have a decreased sense of thirst and are more likely to become dehydrated. Some medications may contribute to this problem by increasing your need for water. Alcoholic beverages should not count toward your water/liquids intake.

MyPyramid For Kids

Eat Right. Exercise. Have Fun.

MyPyramid.gov



Grains Make half your grains whole	Vegetables Vary your veggies	Fruits Focus on fruits	Milk Get your calcium-rich foods	Meat & Beans Go lean with protein
<p>Start smart with breakfast. Look for whole-grain cereals.</p> <p>Just because bread is brown doesn't mean it's whole-grain. Search the ingredients list to make sure the first word is "whole" (like "whole wheat").</p>	<p>Color your plate with all kinds of great-tasting veggies.</p> <p>What's green and orange and tastes good? Veggies! Go dark green with broccoli and spinach, or try orange ones like carrots and sweet potatoes.</p>	<p>Fruits are nature's treats – sweet and delicious.</p> <p>Go easy on juice and make sure it's 100%.</p>	<p>Move to the milk group to get your calcium. Calcium builds strong bones.</p> <p>Look at the carton or container to make sure your milk, yogurt, or cheese is lowfat or fat-free.</p>	<p>Eat lean or lowfat meat, chicken, turkey, and fish. Ask for it baked, broiled, or grilled – not fried.</p> <p>It's nutty, but true. Nuts, seeds, peas, and beans are all great sources of protein, too.</p>

For an 1,800-calorie diet, you need the amounts below from each food group. To find the amounts that are right for you, go to MyPyramid.gov.

Eat 6 oz. every day; at least half should be whole	Eat 2 1/2 cups every day	Eat 1 1/2 cups every day	Get 3 cups every day; for kids ages 2 to 8, it's 2 cups	Eat 5 oz. every day
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Oils Oils are not a food group, but you need some for good health. Get your oils from fish, nuts, and liquid oils such as corn oil, soybean oil, and canola oil.

Find your balance between food and fun

- Move more. Aim for at least 60 minutes everyday, or most days.
- Walk, dance, bike, rollerblade – it all counts. How great is that!

Fats and sugars – know your limits

- Get your fat facts and sugar smarts from the Nutrition Facts label.
- Limit solid fats as well as foods that contain them.
- Choose food and beverages low in added sugars and other caloric sweeteners.



Modified MyPyramid for Older Adults

