- Keep a journal of what you eat every day for a week. You can do this by writing it down or by taking a picture of your food before every meal. Be sure to include breakfast, lunch, dinner, drinks, and snacks.
- At the end of the week, log onto choosemyplate.gov and create a profile. Enter your week's worth of food and see how your real diet compares to your recommended diet.
- Create realistic goals to help reach your recommended diet. Make your goals specific. Ask yourself which foods you should eat less of and which foods you need to eat more, then create a plan to make it happen.

Nutrition around the World

Discuss the book "Hungry Planet: What the World Eats" by Peter Menzel and Faith D'Aluisio (ISBN 13: 978-1-58008-869-5).

- How does the amount of food you eat compare with that of typical people in other countries?

_____

_____

- How do the types of foods your family eats compare to food eaten by other families around the world?

_____

_____

- How does the cost of a week's worth of food in America compare to that of other countries?

_____

_____

_____

_____

_____

_____

New to Nutrients?

Nutrients are the substances in our food that help our bodies grow, stay healthy, and keep moving. Eating just one type of food will not give our bodies adequate nutrition. In order to receive all the nutrients we need, it is important to consume a variety of foods. This is because many different nutrients play important roles in satisfying our bodies' needs. Here is how the most important nutrients work for you:

Use the pictures below to help answer the questions.

Protein – Supplies energy, builds cells and blood and aids in the growth of healthy muscles, organs, skin and hair

• Name some foods that are good sources of protein:

Vitamins – Help your body release energy from carbohydrates, fats, and proteins, and help with other chemical reactions in the body

• Which foods contain the most vitamins?

Minerals – Build strong bones and teeth, make hemoglobin in red blood cells, help maintain body fluids, and help other body chemicals

• What foods have the most minerals?

Carbohydrates – Fuel your body, mainly as starches and sugars

• Name some foods that contain carbohydrates:

Fats – Provide energy, carry vitamins through your body, and flavor food

• Give examples of some foods high in fat:

Water – Makes up more than 60% of your body and helps carry nutrients to cells

Hopping For Your Health

Almost all food contains calories. Calories give you energy. Your body naturally burns calories when you are active. If you don't burn enough calories with physical activity, it can lead to weight gain. That is just one reason exercise is an important part of staying healthy.

Exercise can strengthen your heart and muscles, lower your body fat, and reduce your risk of many diseases. Children and teenagers should be physically active for 60 minutes every day, or most days.

Check your resting heart rate before doing any exercise. Record your heart rate again after jumping rope.

1. Resting Heart Rate (before exercising): _____
2. Heart Rate after jumping rope: _____
3. What is the difference (subtract Resting Heart Rate from Heart Rate after jumping rope): _____

Try testing your heart rate doing different exercises for the same amount of time. You could jump rope for 5 minutes, play basketball for 5 minutes, etc. Or, do it as a class and split up into groups to test the exercises (don't forget to always retest your resting heart rate before doing an exercise).

Physical Activity

Physical activity means movement of the body that uses energy. Walking, gardening, climbing the stairs, playing sports, riding your bike, swimming, or dancing the night away are all good examples of being active. Children and teenagers should be physically active for 60 minutes every day, or most days.

Food Label Facts

Study and discuss the food label and ingredient list from a granola bar. Then answer the questions below.

1. Which ingredients are grown on farms in Illinois?
2. How do the ingredients get from the farm into the granola bar? Discuss transportation and shipping, processing, and stocking store shelves.
3. If you ate two servings, how many calories would you be consuming?
4. You consumed 75 fat calories. How many granola bars did you eat?
5. After studying and discussing the food label and ingredients list, do you think granola bars are a healthy snack? Why or why not?

Nutrition F
Serving Size 1 Bar (2
Servings Per Contain

Amount Per Serving	
Calories 100	Calories fr
	% Dail
Total Fat 3g	
Saturated Fat 1g	
Trans Fat 0g	
Sodium 95g	
Total Carbohydrate 17g	
Dietary Fiber 1g	
Sugars 7g	
Protein 2g	

Calcium 10% • Iron

Not a signifigant source of Cholesterol, Vitamin A, Vitamin

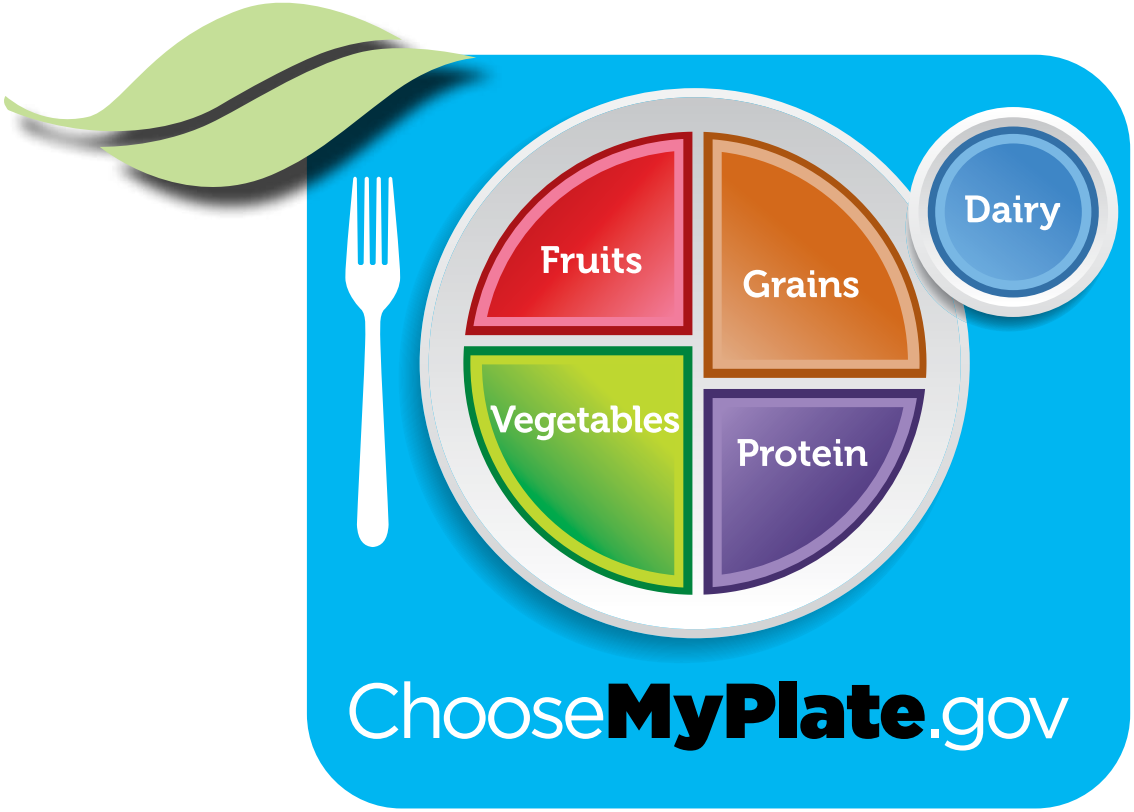
* Percent Daily Values are based 2,000 calorie diet. Your daily va may be higher or lower ependir your calorie needs.

	Calories:	2,000	
Total Fat	Less than	65g	
Sat Fat	Less than	20g	
Cholesterol	Less than	300mg	
Sodium	Less than	2,400mg	
Total Carbohydrate		300g	

Focus on Fruits

After fruit is harvested by hand or machine, it is taken by truck to a packing house. Some orchards/fruit farms have their own packing houses. The fruit is washed, sorted, and packaged. The fruit is then delivered to stores or food processing plants by truck, train, or boat. In storage areas, the temperature is cool and oxygen is reduced. This helps to keep the fruit fresh. At the processing plants, fruits are used to make fruit drinks, pie fillings, jellies, and other products.

Fruits are a good source of Vitamin C. Vitamin C strengthens body cells, promotes healing of wounds and bones, and helps to resist infections. Athletes with broken bones or other injuries should increase or take in Vitamin C to help their bodies heal. Vitamin C may also help your body fight colds and illnesses. Make sure to not take too much Vitamin C though, because the unneeded amount will simply leave your body unused.



Source: United States Department of Agriculture

Vary Your Veggies

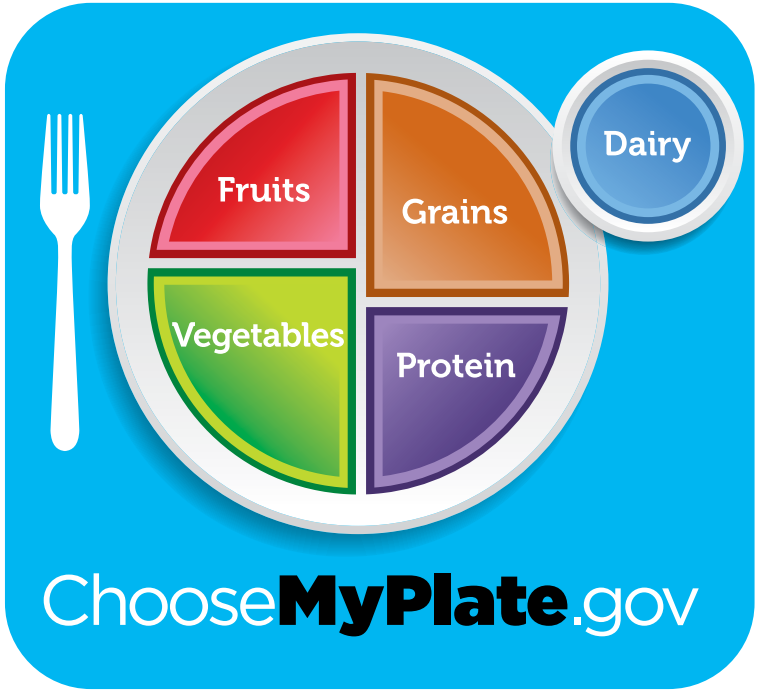
Vegetables provide us with protein, and are a good source of fiber, which helps the digestive system. They also provide potassium, which regulates blood pressure and helps nutrients pass into cells. Vegetables such as potatoes, corn, and peas provide high amounts of protein. Vitamins C and A, provided by some vegetables, are necessary for the growth of body tissue. Vegetables such as broccoli, spinach, and green peppers are good sources of Vitamin C. Carrots, squash, and spinach provide high amounts of Vitamin A, which also helps the body fight infections and maintain healthy skin and eyes.

Make Half Your Grain Whole

Grains are plants such as wheat, rice, corn, barley, rye, oats, and sorghum. They have a high starch content and are an excellent source of energy. They are used to feed people and livestock. Farmers feed livestock farm-grown grain and commercially prepared mixed foods. Sometimes grain is consumed directly by eating the actual grain. Grain is also consumed indirectly when people eat livestock products such as meat, eggs, and milk. Grains can also be processed into flour, starches, and oil, which are used in breads, pastas, cooking oil, and other food products.

Grains are complex carbohydrates. Athletes get most of their energy for exercising from carbohydrates because they are the main source of energy for the red blood cells and the central nervous system. Carbohydrates also help the body use fat as energy.

Choose whole-grain foods, such as whole wheat bread, oatmeal, brown rice, and low-fat popcorn, more often in order to get the most nutritional value from grains.



Get Your Calcium-Rich Foods

Dairy farming is a leading agricultural field in the United States. Dairy cows produce about 22 billion gallons of milk each year. This milk is used to drink, or to make foods such as butter, ice cream, cheese, and other dairy products.

The dairy cow performs a very important job in our food production industry. Dairy cows can change grass and certain grains, which people cannot eat, into milk. A good milk-producing cow will give 20,000-30,000 pounds of milk each year.

The required daily servings from the milk group provide young athletes with calcium, protein, riboflavin, and Vitamin D. These nutrients can be found in milk, cheese, yogurt, cottage cheese, ice cream, and other dairy products. Calcium makes up the 206 bones that are in our bodies, so we need to take in calcium every day. Calcium helps our bones and teeth to grow and stay strong. It also helps to regulate muscle contraction, helps blood clot, and helps to conduct nerve impulses.

Go Lean With Protein

Beef

Cattle are raised on more than 1 million farms and ranches in the United States. Modern beef production involves ranchers, farmers, feed lot operators, meat packers and processors, truck drivers, and retailers. All of these people help to bring beef to us.

Total beef production in the United States is close to 26 billion pounds. Each person consumes about 61 pounds of beef each year. The breeds of cattle used today have been cross-bred for uniform and desirable characteristics. The ratio of fat to muscle, the animal's resistance to disease, and improved growth rate are characteristics that farmers have worked to improve in beef cattle.

Pork

Today, pigs are raised all across the United States. Farmers raise pigs that weigh more, grow more efficiently, and yield more lean meat than ever before. Bacon, pork sausage, pork chops, and ham all come from pigs, along with over 500 different by-products. Pig by-products include items such as glass, china, floor wax, chalk, and crayons.

Poultry and Eggs

Chickens are raised in two different categories: broilers or layers. Broilers provide a low-fat meat that is high in protein. The breast is the leanest part of the chicken and removing the skin, either before or after cooking, lowers the fat content even further. Layers are hens raised for the eggs they lay. An average layer will provide about 240 eggs in a year. Eggs are a great high-protein option as well. Interestingly, a brown egg and a white egg have the same nutritional value.

Pork, beef and chicken are important in our diet because each contains high amounts of protein. Protein to form muscle, hemoglobin, enzymes, hormones. Athletes need more protein than athletes because exercise may promote a of muscle protein.

High Five For Healthy Eating

Trace your hand on a sheet of paper or cardstock. Cut out your traced hand. Label each of your fingers with a food group according to serving proportions: Fruit in your pinky finger, Vegetables in your fourth finger, Grains in your middle finger, Milk in your pointer finger, and Protein in your thumb. Also, write the food groups in the color that represents them on MyPlate: Fruit (red), Vegetables (green), Grains (orange), Milk (blue), and Protein (purple). Next, write exercise in the palm of your traced hand. On the back, list foods that go with each of the food groups and some exercise activities. Next, glue a Popsicle stick to the middle of the palm. You now have something to help you remember your five main food groups. Remember, fats and oils are not a food group; however, you do need small amounts for good health.

CareerCorner

Matt & Jenna Kilgus

Kilgus Farmstead
Fairbury, IL

Can you tell us a little bit about your farmstead and your work?
Our farmstead consists of a dairy farm, grain farm and a milk bottling operation. We milk Jersey cows on our farm and grow corn, soybeans, wheat, and alfalfa. Family members involved on the farm include my uncle and two of my cousins.

What products are produced on your farm?
On our farm we produce whole, 2%, skim, and chocolate milk, as well as heavy cream, half and half, and ice cream mix. We also raise beef, pork, and goat meat on our farm to sell to consumers and restaurants. Many restaurants serve Kilgus products.

What do chefs consider when choosing your products? Chefs like to visit our farm and see how we feed and raise our animals. This helps them decide if they want to bring our product into their restaurant. Many chefs like to be able to tell their customers more about where their product comes from, and coming out directly to the farm helps them to be more knowledgeable about the products they are serving.

In what ways do you consider nutrition when making a diet for your animals?
We aim to feed the most nutritious feed possible to our animals. We try to plant the best types of grain that will help us achieve that goal. We also have the feed tested for nutrition content so we can establish a balanced diet for our cows that will help them produce the highest amounts of product.

What school courses might help someone prepare to do a job like yours? As a dairy farmer selling our own product, we utilize many different areas. First of all, any type of agriculture class, whether it be animal science or ag production, is very helpful. Marketing classes would also be helpful to a farmer marketing direct to consumers. I also find myself using math on a daily basis.

Mike Martz

President
Illinois Beef Association
DeKalb, IL

Tell us a little bit about the Illinois Beef Association and what your role is there.
The Illinois Beef Association is a group of cattlemen that promote the viability of the beef industry. We also strive to build demand for beef through education, communication, and marketing.

What are some of the nutritional benefits of beef?
A 3 oz. serving of beef is an excellent source of zinc, iron, and protein. These 3 nutrients are referred to as ZIP. Lean beef is a delicious and healthy choice that supplies us with ten essential nutrients with fewer calories. Those ten essential nutrients are protein, iron, zinc, vitamin B6, vitamin B12, phosphorus, niacin, riboflavin, selenium, and choline.

What sort of personal experience do you have working with cattle?
When I was a youth, I showed cattle at county, state, and national shows. This experience taught me the proper feeding, health care, and management needed to raise a beef animal. I continue to educate myself on methods that make my animals more comfortable.

How does nutrition play a part in raising and feeding beef cattle?
Cattle need fresh and nutritious feed to continue to grow and remain healthy. A balanced diet is just as important to a beef animal as it is to every person. Fresh and clean water is essential for optimum growth.

What are some professional skills that have been most beneficial to your career?
Being versed in many skills allows a person to challenge a wide variety of tasks. As a farmer, you may have to be a mechanic, plumber, electrician, carpenter, veterinarian, scientist, mathematician, teacher, communicator, or an equipment operator. A farmer needs a wide variety of skills and knowledge.

What is the best part of your job?
The best part of my job is that I am my own boss and my actions will determine how successful I am. I also love to work outside.

Kenneth Eilerman

Eilerman Enterprises
Batchtown, IL

What types of produce do you grow at Eilerman Farms?
We are mainly a peach orchard. We have moved into growing asparagus, sweet cherries, blue and black berries, and raspberries. The vegetables we raise include onions, tomatoes, zucchini, cucumbers, summer squash, eggplant, and peppers. Plus, we grow watermelons, cantaloupe and sweet corn.

What is your favorite food to eat that you grow?
The peaches are my favorite. We also grow cherries, and those are really good, too. However, the peaches are our big seller. Calhoun County is known for its peaches.

What kind of work goes into growing nutritious foods like these?
Everything we grow begin as seeds that we start in greenhouses and nurseries. We use a new system called "high tunnels" to help get early production and late production. The crops are grown in the soil with a plastic dome over them. Some of them have heaters. These high tunnels protect them a little bit from the weather, too. For example, I can plant tomatoes in early March and use the heaters to help keep them warm. They'll be ready to harvest early in the season, and I can do the same in the fall.

What is your favorite part of your job?
Selling and delivering our produce is my favorite part. I enjoy talking with the people that are going to eat our products, as well as the grocery stores that sell our produce.

What would you tell young people interested in this line of work?
We hire high school students to work with us. I like to give them the message to keep an open mind about any work they do. They have to do hard labor sometimes, but hard work is rewarding.

This Ag Mag has been provided by:

Illinois AGRICULTURE in the Classroom℠

FARM CREDIT

Sorting It All Out

What you will need:
6 Hula Hoops
Plastic food or pictures of food items that represent each food group

Activity Instructions:
Label each hula hoop as one of the food groups- Fruits, Vegetables, Grains, Milk, and Protein. Then place the hula hoops on the floor. (Another idea: Get hula hoops that represent the colors of each food group from MyPlate). Hand out the plastic food or pictures of food to your students and then have them come up and put them in the hula hoop they think it belongs in.
After they are done, go through and discuss the foods in each category. If foods are placed in the wrong category, discuss why they do not belong, and what category they should be in.

Lesson Extenders:
Label the hula hoops with nutrient groups (For example: Carbohydrates, Protein, Calcium, Vitamins, and Minerals). Have the students sort out their food according to what nutritional value would be most gained by eating that particular food. For example: Milk would go in the calcium hoop.

Label the hula hoops with continents and have the students try to figure out which continents are responsible for growing each food item. This is a great way to talk about different countries, climates, temperatures, soil types, trade, etc.

This Ag Mag complements and can be connected to the following Common Core and Next Generation Science Standards:
Common Core State Standards: ELA-Literacy.RI.4.2; RI.4.2; RI.4.4; RI.4.7; RI.4.10; W.4.7; W.4.8; W.4.9; SL.4.1; SL.4.4; L.4.1; L.4.6
Mathematics-Content.4.OA.3; 4.MD.1; 4.MD.2; 5.OA.3
Next Generation Science Standards: Engineering Design: 3-5-ETS1.B; Earth Sciences: 4-ESS3-1; Life Sciences: 4-LS1, MS-LS1-7; Physical Sciences: 4-PS3, 5-PS1-3, 5-PS3