



FOOD *and* FARM

Facts

JUNIOR



WELCOME

Questions about agriculture are not always easy to answer. Answering the questions children have is important as it helps them understand where their food, fiber and energy comes from. Food and Farm Facts Junior takes questions many children have and provides a simple way of understanding farming practices and contributions. It gives children an answer and opens the door for more exploration.

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Who Is a FARMER?

A farmer is a person just like your parents or grandparents. Farmers have a family. They like doing things in their community. A farmer's job is to care for the land and animals. They grow crops on the land. The crops feed us and feed animals. Farmers raise animals too. The farmer takes care of the animals every day. They feed them, water them and give them shelter.

A farmer is always learning. They need to know science and math and other school subjects just like you. Knowledge helps the farmer.

There are different types of farms across America.

Some farmers grow fruits and vegetables. Some farmers grow grains. Some farmers raise animals. Some farmers own greenhouses. No matter the type of farm, the farmer takes his or her job seriously. Farmers work hard. They take good care of the land so they can continue farming.



Did you know?
There are **3.4 million farm operators** in the U.S. Thirty-six percent of farm operators are women. (That means that for every 100 farmers, 36 are women!) More than 25% of all farmers are beginning farmers.

Try it!
Think of something you would like to farm. Draw yourself on the farm growing your favorite fruit or vegetable or raising animals!

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What Is **AGRICULTURE**?



Agriculture is a big word! We can explain it with simple words.

Agriculture is growing our food, fiber for clothes and fabrics and energy. The food you eat is grown by farmers.

Farmers grow fruits and vegetables. They also grow grains and fiber. Grains are ground to make flour. You can find flour in bread, pancakes, and many other things. Fiber is used to make clothes and other things. Cotton is a fiber. Farmers grow cotton in fields.

Animals give us food and fiber too. We eat eggs, milk and meat. Wool is a fiber. It comes from sheep, llamas and alpacas.

Farmers also help produce energy. Biodiesel comes from soybeans. Biodiesel makes vehicles go. Ethanol makes vehicles go too. Ethanol uses products like corn and sorghum.



Agriculture is all around us!

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Try it!

Find out what is growing in your state with the National Agriculture in the Classroom's State Agriculture Fact Sheets.
www.agclassroom.org/teacher/ag_facts.cfm

Did you know?

One U.S. farm feeds 166 people each year.ⁱⁱ



How Do FARMERS Use the Land and Take Care of It?



Farmers use land for different things. Some land is used to grow crops. Other land is used for pasture to raise animals. There is also land that is used to provide habitat for wildlife.ⁱⁱⁱ

Cropland is different across America. Some land is good for growing grains. Some land is good for growing fruits and vegetables. Some land is good for growing Christmas trees. Farmers plant crops that will grow well in the soil and climate.

Farmers use land for pasture too. Pasture is land where animals graze. Grazing means animals eat the grass or forage in the pasture. Many times, pastureland cannot be used as cropland. The land might be too hilly or rocky. The land might not have the right nutrients to grow crops.

Farmers take care of the land they use. Farmers use no-till practices or conservation tillage to reduce erosion.^{iv} Erosion is when wind and air take away the soil. Farmers also replace the nutrients taken from the soil. Farmers do this by feeding the plants fertilizer. They also use crop rotation. Different crops are planted at different times. Some crops take nutrients from the ground while other crops replace nutrients.^v Because farmers take care of the land, it can be used over and over again.

Did you know?

There are 900 million acres of farmland in the United States.^{vi}

Try it!

Find a piece of ground on your school campus or at home to care for. Plant ground cover or use mulch to prevent erosion.





What Is **FOOD SAFETY**?

Food safety is keeping food free from foodborne illness. If food isn't properly prepared or stored, it can make you sick. There are things you can do to keep food safe.



You should always wash your hands before touching food. When your hands are clean, it keeps food clean. You can also help by washing fresh fruits and vegetables.

Some foods need to be kept cold. Refrigerators keep food cold. The food should not be left out of the refrigerator for a long time. You can put foods back in the refrigerator.

Your parents and grandparents can keep food safe too. Preparing meals properly is important. Separate cutting boards should be used for uncooked meat and ready-to-eat foods.^{vii} Temperature is important when cooking meat. Using a meat thermometer will ensure the meat is cooked properly. There are so many great-tasting foods. You can be a big help by keeping those foods safe.

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Did you know?

Foods that need to be cold should be kept in a refrigerator that is at or below 40 degrees.^{viii}

Try it!

Practice singing the ABCs while washing your hands. Wash and sing for at least 20 seconds!



Does CHOCOLATE MILK Come from Brown Cows?



Milk comes from dairy cows that are raised on a farm.

Dairy cows come in different colors. There are black and white cows. There are brown cows. There are reddish-brown and white cows. There are golden-brown cows. There are brownish-gray cows.^{ix}

All of these cows produce white milk.

The farmers milk the cows at least twice a day.

The milk is stored in a bulk tank. Then the milk leaves the farm in a big stainless steel tanker pulled by a semi. The milk goes to a processing plant. The plant makes chocolate milk. Cocoa and sugar are added to the white milk to make chocolate milk. White milk and chocolate milk taste so good!



Did you know?
When milk leaves a cow, it is 101°. Farmers put the milk in a bulk tank and cool it to 40°. Cooling the milk stops bacteria from growing.

Try it!
Make flavored milk using ingredients like chocolate syrup, strawberry syrup or vanilla. Which one is your favorite?





What Is the Difference Between **WOOL** and **COTTON**?

Wool and cotton are great products. They are used to make many things. You wear things made from both products. Wool and cotton come from different places.

Wool comes from sheep. Llamas, and alpacas also produce fiber. Wool comes off the animal when they are shorn. It is like getting a haircut. Wool shorn from an animal is called a *fleece*. The fleece is sent to a mill. The wool is used to make clothes, carpets, upholstery, tennis ball covers and many more things.^{xi}

Cotton comes from a plant. Farmers plant cotton seed in the spring, and it grows throughout the summer. In the fall, the farmer harvests the cotton.^{xii} The cotton is sent to a mill. The cotton is used to make clothes, diapers, wipes and so much more.^{xiii}

Wool and cotton give us more than clothes, carpets and other products. Wool gives us lanolin. Lanolin is like a lotion. We use lanolin for skin care.^{xiv} Cottonseed gives us more than cotton. Cottonseed is crushed and produces an oil. The cottonseed oil is used in things like cooking oils and salad dressings. The rest of the crushed cottonseed is called *meal*. The meal is used in livestock feed and fish feed.^{xv} Wool and cotton give us so much!



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Did you know?

American paper money is made of 75% cotton.^{xvi} One pound of wool can make 10 miles of yarn.^{xvii}

Try it!

Close your eyes and feel samples of cotton and wool fabric. Can you tell the difference?





What Happens When I Flip on a **LIGHT SWITCH?**

When you flip on a light switch the lights come on. Inside the switch is a circuit. The wires in the circuit connect and turn on the lights.^{xviii} Electricity flows through the circuit. Electricity is made from different resources.

Water is used to make electricity. First a powerhouse is built next to a body of water. There is a dam that holds back the water. The water behind the dam turns the turbines. When the turbines turn, electricity is created. Rain helps keep the bodies of water high enough so the turbines turn.

Wind creates electricity too. Wind turbines are like fans. They have blades that turn when the wind blows. When the blades turn, electricity is created.

Electricity can be made by the sun.^{xix} The sun shines on solar panels. Solar panels collect the energy and make electricity.

Electricity can also come from coal and nuclear power plants.

Many farms have solar panels. Those farms help supply electricity for the community. Some farms have wind turbines. The wind turbines also help supply electricity for the community. Electricity comes from many resources. We get to use electricity because of all the different resources.

- **Did you know?**
- **Over 90,142 farms use solar panels to generate electricity.**^{xx}


- **Try it!**
- **Rub your hands together quickly to create energy from friction. Your hands will become warm as you move them back and forth.**

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Where Does My PIZZA Come From?



Has your family ever ordered pizza at a restaurant? What do you like on your pizza? Did you know the pizza you eat comes from a farm? Farmers grow the ingredients to make your pizza.




Pizza crust is made with flour. Flour comes from wheat grown in the farmer's field. The wheat is ground and made into flour.



Pizza sauce is made from tomatoes. California and Florida farmers grow the most tomatoes in the United States.^{xxi}

The cheese on the pizza is made from milk. Milk comes from cows. Dairy farmers milk the cows and ship the milk to a plant. The plant uses some of the milk to make cheese.



Do you like pepperoni on your pizza? Pepperoni is made from pork and beef.^{xxii} Farmers and ranchers raise the pigs and cows.

Some people like mushrooms on their pizza.

Mushrooms don't grow like other plants. Mushrooms grow in cool, dark places.^{xxiii} Farmers harvest mushrooms by hand.^{xxiv}

There are many other vegetables and meats people like on their pizza. Farmers grow and produce those vegetables and meats. When you eat a piece of pizza, think of a farmer!



Did you know?
Americans consume more than 3 billion pizzas every year.^{xxv}



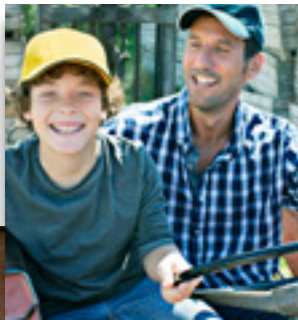
Who Works on the WEEKENDS?

Do you like the weekends? Saturdays and Sundays, you don't go to school. You get two days off! Do your parents or grandparents work on Saturdays or Sundays? Many people work on the weekends. Farmers are people who work on weekends. There are several things a farmer needs to do every day.

Farmers care for animals on the weekends. Animals need to be fed, watered and cared for. Dairy cows need to be milked at least twice a day. Poultry farmers need to gather eggs. There are many different ways animals need to be cared for.

Crop farmers need to plant and harvest when the time is right. Farmers work every day until the fields are planted. They also work every day until the fields are harvested. Between planting and harvest, farmers take care of the fields.

Farmers have many things to do to keep the farm running. Farmers work weekdays and weekends.



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Did you know?

Farming allows more than 22 million Americans to work.^{xxvi}

Try it!

This weekend, write a thank you note to a farmer. Deliver it to your local county Farm Bureau.



Who Is Driving the TRACTOR?



A farmer uses a tractor for many reasons. One reason is to plant and harvest crops. When a farmer gets in a tractor, he might not be driving it. Technology might be driving it. There is technology called *auto-steer* and *GPS-based mapping*.^{xxvii}

Auto-steer and GPS-based mapping are computers.

These are like the tablets you use at home or school. The computer has programs on it that helps the farmer. The auto-steer program drives the tractor so crops are planted in straight rows. With the tractor driving itself, the farmer observes all the equipment. The farmer is watching to make sure everything is working correctly.

The GPS-based mapping program helps the farmer too. The program tells the farmer things about the field that is being planted or harvested. It tells the farmer how wet or dry the soil is. It tells the farmer if the nutrients in the soil will help the plant grow. It tells the farmer how many seeds to plant per acre.^{xxviii} The GPS-based mapping program helps the farmer be successful.

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Did you know?

A farmer can design fun corn mazes with the GPS-based mapping program.^{xxix}

Try it!

With an adult, use the Google My Maps app to pin locations at home or at school to make your own personal map.





Who Will I Be in **AGRICULTURE?**

There are many careers in the agricultural industry.

To help animals, you could be a large-animal veterinarian. Most large-animal veterinarians do farm visits. They go to the farm to help sick animals. Veterinarians also do well checkups for animals. Well checkups keep animals healthy.

You might like to work with plants. There are many careers working with plants. Crop specialists help farmers grow great crops. They help the farmer pick the right crop for the soil type. Crop specialists also work with the latest technology. Technology is used to produce a healthy crop. Plants are more than crops in fields. You could work in a nursery or greenhouse. Greenhouse workers grow, sell, install and care for plants and landscapes.^{xxxi}

Florists are also people who work with plants. Florists create beautiful floral arrangements. They sell those beautiful arrangements to your family

and your neighbors. Maybe you like to tell others about what you learn.

You could be an agricultural teacher. Teachers help train people to be successful in their career.



You could also tell others about agriculture by being a journalist. A journalist writes articles and tells the story through media.

You could be a scientist. Scientists study seeds, soil, animals, plants and technology to make improvements.

The list of careers in agriculture is long. Maybe someday you will work in the agricultural industry.



Did you know?

There are nine career focus areas in agriculture. To find out more, visit the National FFA Organization's Ag Explorer tool. www.agexplorer.com

Try it!

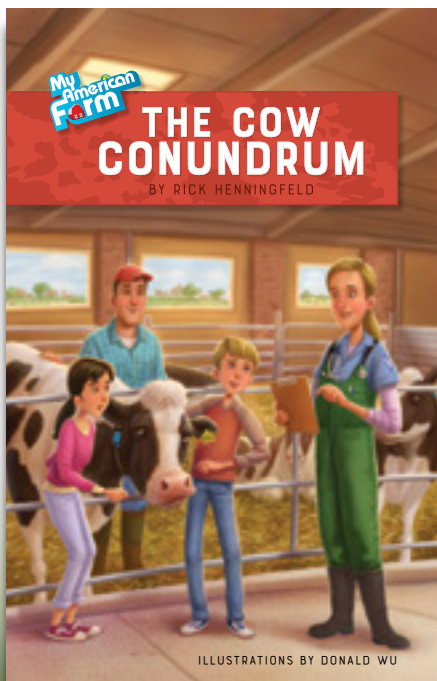
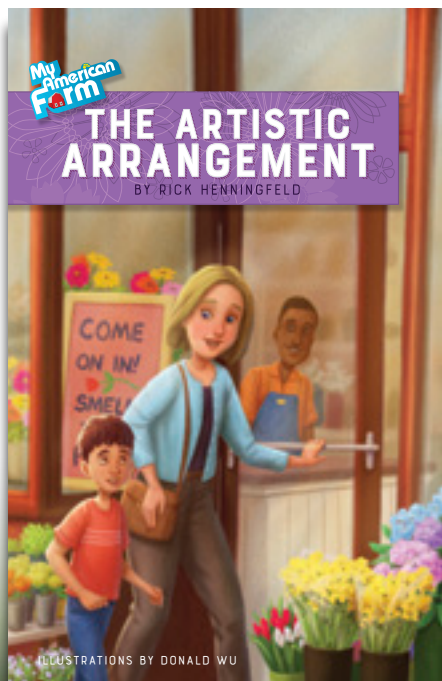
Go to www.MyAmericanFarm.org. Pick your ag career avatar and play the game "My Little Ag Me"!



Endnotes

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