Illinois GRICULTURE in the Classrooms 2018-2019 CALENDAR

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August 2018

Domesticated, fowl, protein, appendage, omnivore, historian *Chicks and Chickens* by Gail Gibbons *Chickerella* by Mary Jane and Herm Auch *All About Turkeys* by Jim Arnosky

Words & Terms To Learn

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1 More than 300 breeds of chickens exist, but only a few are used for meat-type production.	2 Turkeys have roamed North and South America for 10 million years.	3 Chicken is the most consumed protein in the United States.	4
5	6 Each year, Illinois produces nearly 128 million dozen eggs!	7 Egyptians had domesticated, or tamed, fowl that laid eggs for man to eat by 3000 B.C.	8 Eggs are used in vaccines, paints, shampoo & conditioners, and animal feed.	9 Eggs have 6 grams of protein that help sustain mental and physical energy.	10 Feathers of poultry are used to stuff pillows and insulate clothing.	11
12	13 All 9 essential amino acids that your body needs, but cannot produce, are found in eggs.	14 Illinois has over 5,000,000 chickens.	15 The wattle is the bright red appendage at the neck of a turkey.	16 A tom is the name for a male turkey, while the name for a male chicken is a rooster.	17 The house or cage in which a chicken lives is called a coop.	18
19	20 Eggs contain zero carbohydrates and no sugar.	21 The term poultry refers to chickens, turkeys, ducks, ostriches, emus, quail, pheasants, geese or pigeons raised for meat or eggs.	22 Chickens are omnivores. They eat seeds and insects but can also eat larger prey like small mice and lizards.	23 Egg yolks are one of the few foods that naturally contain Vitamin D.	24 Chickens need grit, which is a mixture of angular, hard crushed rock in their diet to produce eggs.	25
26	27 An egg's shell color is only a breed characteristic. The eggs inside are the same regardless of the shell color.	28 Wild turkeys are larger than domestic turkeys, and they look more like the pictures of turkeys seen around Thanksgiving.	29 Historians believe that the first chickens related to today's egg layers were brought to the Americas by Columbus's ships.	30 It is widely believed that chickens have poor sight and are color blind. In fact, they have better vision than humans.	31 Chickens can run up to nine miles per hour for short periods of time and can get airborne enough to get over a fence.	



September 2018

Cultivate, species, gene pulverized, orchard The Fruits We Eat by Gail Gibbons From Pit to Peach Tree by Ellen Weiss Peaches by Jodi Lynn Anderson

Words & Terms To Learn

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1
2	3 Cultivated since at least 1000 BC, the peach originated in China.	4 The ancient Chinese considered the peach a symbol of longevity and immortality.	5 California produces more than 50% of the peaches in the United States, growing 175 different varieties.	6 The two basic types of peaches are clingstone and freestone. Clingstone pits stick to the skin; freestone separate easily.	7 The Romans called peaches "Persian Apples" naming them after the country that introduced peaches to the West.	8
9	10 A large peach has fewer than 70 calories and contains 3 grams of fiber. It's also a good source of vitamins A and C.	11 China is the largest world producer of peaches, with Italy second in production.	12 Peaches are part of the rose family, along with plums, apricots, and almonds.	13 The flesh and skin of a peach can be yellow or white and is always fuzzy.	14 Nectarines are an identical species to peaches, not a cross of peaches and plums. A single gene difference makes their skin smooth.	15
16	17 Peaches are called "stone fruit" because of the hard pits surrounding their seeds.	18 Pulverized into tiny beads, peach seeds are used in facial cleansers and are much safer for the environment than plastic microbeads.	19 Peaches came to America with Spanish explorers in the 16th century, travelling to the American Southwest, and again later with early English settlers to Jamestown.	20 Peaches are picked by hand from trees.	21 The life of a peach tree is about 15 years, and for the first two years they do not bear fruit.	22
23 30	24 Florida was home to the first peach orchard in North America, established in 1565.	25 Peaches are grown in southern Illinois where the growing season is longer, and temperatures are warmer.	26 True wild peaches are only found in China where the wild fruit is small, sour, and very fuzzy.	27 The juice from peaches makes a great moisturizer, and it is found in many cosmetics.	28 Peaches are the third most popular fruit grown in America.	29



October 2018

Pollination, gourds, antioxidant, beta-carotene, immigrant, colonial

Words & Terms To Learn

How Many Seeds in a Pumpkin? by Margaret McNamara and G. Brian Karas The Legend of Spookley the Square Pumpkin by Joe Troiano Too Many Pumpkins by Linda White

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 Pumpkins grow on a vine that can grow up to 30 feet long.	2 Through pollination, pumpkins start by growing inside a big, orange flower blossom.	3 Illinois farmers grow more pumpkins than anywhere else in the world.	4 After pollination, a tiny green pumpkin starts to grow in size and changes from green to yellow to orange.	5 Pumpkin is low in calories, fat and sodium, and high in fiber.	6
7	8 The tap root of a pumpkin can grow 2-3 feet deep.	9 Morton, Illinois, where 80% of the world's canned pumpkin is processed, is considered the Pumpkin Capital of the World.	10 Pumpkins are members of the gourd family, which includes cucumber, honeydew melons, cantaloupe, watermelons, and zucchini.	11 In early colonial times, pumpkins were used as an ingredient in pie crusts, not for the filling!	12 Pumpkins have grown in North America for five thousand years.	13
14	15 Native Americans developed a method of planting corn, beans and pumpkins together called "Three Sisters."	16 The heaviest pumpkin on record was grown in Belgium in 2016 and weighed 2,624 pounds.	17 It takes 110-120 days for a pumpkin vine to produce mature pumpkins.	18 The bright orange color of pumpkins is a strong clue that pumpkins are full of the antioxidant, beta-carotene.	19 Pumpkins can range in size from less than one pound to more than 2,000 pounds, depending on the variety.	20
21	22 The name pumpkin originates from "pepon," the Greek word for "large melon."	23 Pumpkin seeds are full of protein and iron and can be roasted as a snack. They are also known as pepitas.	24 Native Americans used pumpkins as a staple in their diets centuries before the Pilgrims landed.	25 Pumpkins are 90% water.	26 The flowers of a pumpkin are edible.	27
28	29 Jack-o'-lanterns were made from turnips until Irish immigrants arrived in America and discovered pumpkins.	30 Pumpkins are a fruit because they are the part of the plant that contains seeds.	31 Pumpkins originated in Central America.			



November 2018

NOX M

Nutrient, ruminant, homogenization, gestation, pasteurization

Words & Terms To Learn

Clarabelle by Cris Peterso*n A Cow, a Bee, a Cookie and Me* by Meredith Hooper *Hooray for Dairy Farming* by Bobbie Kalman

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 Milk has every nutrient your body needs. A person could survive wholly on milk alone!	2 Dairy cows are social animals, and they naturally form herds. Like people, they make friends with some and avoid others.	3
4	5 People were herding dairy cows over 7,500 years ago, even before they engaged in agriculture.	6 It takes more than 21 pounds of whole milk to make one pound of butter.	7 Cows have an acute sense of smell and can smell something up to six miles away.	8 Plastic milk bottles were first introduced in the United States in 1967.	9 A cow turns grass into milk within 2-3 days.	10
11	12 Dairy cows are called ruminants because they have multiple compartments in their stomach.	13 Ruminants first chew their food to soften it, swallow it, and then return it to their mouth to continue chewing, which is called "chewing the cud."	14 Homogenization is the process where milk fat is broken into tiny particles that are evenly spread throughout the milk.	15 Depending on the breed, one dairy cow can produce 6.5-8 gallons of milk per day.	16 A female dairy cow is called a heifer until she gives birth. After giving birth, she begins producing milk.	17
18	19 The gestation period for cows is nine months. A newborn calf weighs 80-100 pounds at birth.	20 Cows have a four- compartment stomach which includes the rumen, reticulum, omasum, and abomasum.	21 The udder is the part of a dairy cow that produces, stores, and dispenses milk.	22 Most dairy cows are milked 2-3 times per day.	23 National Milk Day is January 11.	24
25	26 The process of heating and cooling milk to kill bacteria and protect milk's purity and flavor is called pasteurization.	27 On average, it takes only 48 hours for milk to travel from the farm to the store.	28 The ideal temperature range for cows is 26-64 degrees Fahrenheit.	29 A dairy cow spends 8 hours per day eating, 8 hours chewing her cud, and 8 hours sleeping.	30 An average dairy cow weighs 1,200 pounds.	









Pork (Late Season)

December 2018

Domesticated, by-products, sow, manure, farrow, piglet

Pig 05049 by Christien Meindertsma *Pig* by Jules Older *Pigs* by Gail Gibbons

Words & Terms To Learn

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1
2	3 Happy 200th Birthday, Illinois!!	4 Pork is the food products that come from pigs. Some examples are bacon, ham, ribs, and pork chops.	5 By 4900 BC, pigs were domesticated in China. By 1500 BC, they were being raised in Europe.	6 Pigs cannot sweat, so farmers use fans and sprinklers to help keep them cool.	7 Pig by-products are used for over 500 different items, including many medicines.	8
9	10 A pig is one of the few animals that will not overeat.	11 A sow is a female pig used for breeding. Sows are pregnant for approximately three months, three weeks, and three days.	12 A piglet is a baby pig. At birth, a piglet weighs around 2 ½ pounds.	13 Pigs drink up to 14 gallons of water every day.	14 Most pigs are raised indoors to keep them safe from extreme weather conditions.	15
16	17 China has the most domesticated pigs in the world. The United States ranks 2nd.	18 The explorer, Hernando de Soto, landed with America's first 13 pigs at Tampa Bay, Florida, in 1539.	19 Within three years, de Soto's herd of pigs grew to over 700. Some of De Soto's pigs ran away, becoming wild pigs, the ancestors of today's feral pigs or razorbacks.	20 Pigs have a tremendous sense of smell. The tip of their snout is connected to muscle that gives it strength and flexibility to root in the ground.	21 By the time a pig is four to six months old, it weighs about 280 pounds.	22
23	24 Farrow means to give birth to piglets.	25 A litter means a group of piglets born together. Litter	26 There are about 2 billion pigs on Earth! Pigs live on	27 Manure from pigs is often spread on fields as fertilizer.	28 A pig's tongue contains 15,000 taste buds. By	29
30	Adult pigs can run 11 31 miles per hour!	sizes are usually between 8-12 piglets.	every continent except for Antarctica.		comparison, the human tongue has 9,000 buds.	



January 2019

Evolve, gait, Equus, domesticated, herbivore, thoroughbred, ungulates

Words & Terms To Learn

War Horse by Michael Morpurgo Cross Wire by Dotti Enderle Firehorse by Diane Lee Wilson

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1 Horses have lived on Earth for more than 50 million years, evolving from much smaller creatures.	2 Horse hooves are made from the same protein that fingernails and human hair are made from.	3 The four natural gaits, or speeds, of a horse are walk, trot, canter, and gallop.	4 Horses belong to the Equus family. Equus comes from the ancient Greek word meaning quickness.	5
6	7 The difference between a horse and a pony is that ponies have bigger heads, stockier legs, and are smaller than a horse.	8 A hand is a unit used to measure the height of a horse. A hand is equal to four inches.	9 Typically, a horse only sleeps 2.5-3 hours per day.	10 Humans first domesticated horses between 4000 and 3000 BC.	11 A male horse is called a stallion, and a female horse is called a mare. NATIONAL MILK DAY	12
13	14 The height of a horse is measured from the ground to their withers, which is the high point between a horse's shoulder blades.	15 Horses only breathe through their noses and not through the mouth like humans.	16 The average life span of a horse is 20-25 years.	17 Horse hooves need to be trimmed regularly. Professionals that trim hooves are called farriers.	18 Horses are ungulates – mammals with hooves.	19
20	21 Out of over 400 breeds of horses, the most popular breed is the Arabian.	222 Horses are herbivores, which means they only eat vegetation, preferably fresh grass and hay.	23 Out of all Earth's land animals, the horse has the biggest eyes.	24 Tack is the name given to brushes, saddles, and other equipment used to ride and care for horses.	25 A group of horses is called a herd.	26
27	28 A filly is a young female horse.	29 Thoroughbred horses can run a mile in about 90 seconds.	30 A foal is a newborn horse.	31 Large outdoor enclosures used to house horses are called paddocks.		



February 2019

By-products, hemisphere, Bovidae, protein, fermented, silage

Words & Terms To Learn

Beef Cattle in the Story of Agriculture by Susan Anderson and JoAnne Buggey Little Joe by Sandra Neil Wallace The Beef Princess of Practical County by Michelle Houts

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1 In 2017, there were 1.18 million cattle and calves on Illinois farms.	2
3	4 Beef is a good source of ZIP: zinc, iron, and protein. Beef also provides B-complex vitamins.	5 We get more than meat from beef cattle. All other products are called by-products, some of which include paint, candles, plastics, soaps, piano keys, and basketballs.	6 The meat from cattle is called beef. On average, Americans eat about 65 pounds of beef each year.	7 From one cowhide, 11 basketballs, 144 baseballs, or 20 footballs can be made.	8 Cattle were first brought to the western hemisphere by Christopher Columbus on his second voyage in 1493.	9
10	11 There are 50 breeds of beef cattle in the U.S. The most popular are Hereford, Angus, Brahman, and Charolais.	12 Beef cattle have cloven, or split, hooves.	13 A cow's diet is a mixture of grain, hay, grass, and supplements.	14 Cows can eat around 40 pounds of food each day.	15 A calf weighs about 80 pounds at birth. The calf drinks mother's milk and eats grass for the first six months.	16
17	18 The scientific name for cattle is Bovidae. This family of mammals also includes sheep, goats, bison, and antelopes.	19 Cattle "chew their cud", which means they re-chew their partially digested food.	20 Ear tags help farmers mark and track their cattle for easy recognition.	21 Male breeding cattle are called bulls. Females, prior to giving birth, are called heifers.	222 Ground beef is the most popular form of beef. It is used to make hamburgers.	23
24	25 Between the meat from beef cattle and the beef by- products, 99% of every steer (male cattle used for meat) is used.	26 The basic cuts of beef are the chuck, loin, rib, and round. Names of the cuts of meat vary regionally.	27 One serving of beef is 3 ounces and provides more than half of your required protein for the day.	28 Silage is fermented corn, wheat or hay with the stalks and leaves that is chopped and fed to cattle.		



March 2019

Kernel, combine, wheat germ, embryo, gluten Farmer George Plants a Nation by Peggy Thomas Feeding the World Wheat by Jane E. Singer

The Thing About Luck by Cynthia Kadahata Recommended Reading

Words & Terms To Learn

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1 A wheat plant is an annual grass plant that grows to be two to four feet tall.	2
3	4 In Illinois, 83% of the wheat grown is in the southern half of the state, from Springfield south.	5 The four basic parts of a wheat plant include the head, stem, leaves, and roots.	6 As early as 7000-6000 BC, Swiss lake dwellers ground wheat kernels, mixed flour with water, and baked the first flatbreads.	7 The variety of wheat grown in Illinois is soft red winter wheat. It is used to make cereals, cakes, cookies, and pretzels.	8 A kernel is a wheat seed. There are about 50 kernels in a head of wheat and 12,000- 14,000 kernels in a pound.	9
10	11 Wheat is harvested by combines where the kernel is separated from the straw.	12 Millers grind wheat kernels into fine powder to make wheat flour.	13 Wheat flour contains a protein substance called gluten. Wheat flour is great for baking since the gluten makes the dough elastic.	14. Wheat was first planted in the United States in 1777 as a hobby crop.	15 Thousands of varieties of wheat fall into six classes: hard red winter, hard red spring, soft red winter, hard white, soft white, and durum.	16 IL READS KICKOFF www.ilreads.org
17	18 Kansas is the largest wheat producer in the United States and North Dakota is a close second.	19 U.S. farmers grow nearly 2.4 billion bushels of wheat on 63 million acres of land.	20 Nearly 50% of the U.S. wheat crop is sold and exported to about 60 nations around the world.	21 Never refrigerate bagels or any bread product. Bread products become stale six times faster in the refrigerator.	22 Approximately 3 billion pizzas are sold in the United States each year. Wheat is used to make pizza crust.	23
24 31	25 The stem is the part of the wheat plant that supports the head and is known as straw after harvest.	26 The starch found in wheat makes it suitable to be used as a versatile adhesive. The sticky stuff on your stamps contains wheat!	27 Wheat germ is the embryo of the wheat kernel that develops into a wheat plant.	28 One bushel of wheat yields 60 pounds of whole wheat flour or 42 pounds of white flour.	29 The wheat from area farms is collected at grain elevators and then shipped to flour mills.	30



April 2019

Pomology, hybrid, pollinate, grafting, archeologist

Apples to Oregon by Deborah Hopkinson & Nancy Carpenter Applesauce Day by Lisa Amstutz The Apple Orchard Riddle by Margaret McNamara & G. Brian Karas Peeled by Joan Bauer **Recommended Reading**

Words & Terms To Learn

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 Apples are part of the rose family, just like pears and plums.	2 There are more than 2,500 varieties of apples grown in the United States and over 7,500 grown around the world.	3 The apple tree originated in Central Asia.	4 It takes four to five years for an apple tree to produce its first fruit.	5 Pomology is the science of apple-growing.	6
7	8 The GoldRush apple, a sweet-tart yellow apple, is Illinois' State Fruit.	9 A hybrid, the GoldRush is a cross between two different varieties of apples.	10 After an apple blossom is pollinated, it develops into an apple.	11 Apples were brought to the United States by the Pilgrims in 1620.	12 Most apple trees are grown by grafting or budding onto already existing rootstocks.	13
14	15 Apples contain Vitamin A, C, B6, B12, thiamin and niacin, as well as 5 grams of fiber!	16 The crabapple is the only apple native to North America.	17 Typically, apple trees blossom in spring with fruit maturing in autumn.	18 It takes about 36 apples to create one gallon of apple cider.	19 Apples were the favorite fruit of ancient Greeks and Romans.	20
21	22 In 1730, the first apple nursery was opened in Flushing, New York.	23 The world's top apple producing countries are China, United States, Turkey, Poland, and Italy.	24 Apples float because 25% of their volume is made up of air.	25 Apple trees can live for more than 100 years.	26 Most apples are still picked by hand in the fall.	27
28	29 Archeologists have found evidence that humans have enjoyed apples since at least 6500 BC.	30 Apples ripen up to 10 times faster when left out than when refrigerated.				



May 2019

Ethanol, emission, biodegradable, commodity, tassel, evaporation, fiber *Corn* by Gail Gibbons *Harvest Year* by Cris Peterson *The Inventor's Secret* by Suzanne Slade

Words & Terms To Learn

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1 There are several types of corn. The most common types are field corn, sweet corn, and popcorn.	2 Corn is actually a grain, not a vegetable, and is part of the grass family.	3 Over half of all the corn grown in the United States is grown in four states: Illinois, Iowa, Minnesota, and Nebraska.	4
5	6 Corn is called maize by most countries, which comes from the Spanish word 'maiz.'	7 A kernel is the yellow seed on an ear of corn. One ear of corn averages 800 kernels in 16 rows.	8 The tassel is the tuft at the top of the corn plant that contains the pollen.	9 Corn always has an even number of rows on each cob.	10 Each corn plant produces just one or two ears of corn and is ready for harvest after approximately 120 days of growth.	11
12	13 In the days of the early settlers to North America, corn was so valuable it was used as money and traded for other products.	14 Tassels, stalks, husks, ears, leaves, roots, and kernels are all part of a corn plant.	15 Of the corn grown in Illinois, 53% is exported, 25% is used to make ethanol, 15% is processed, and 7% is used for animal feed.	16 Ethanol is a high performance, locally grown, renewable fuel made from corn. Gasoline is not renewable.	17 Compared directly to gasoline, ethanol reduces greenhouse gas emission by 40-50%.	18
19	20 Corn plastic is a more environmentally friendly plastic than petroleum-based plastic and is completely biodegradable.	21 Field corn is also known as dent corn, which is higher in starch and lower in sugar than sweet corn.	222 A bushel is a unit of measure for volumes of dry commodities, such as shelled corn kernels.	23 One bushel of corn produces 2.8 gallons of ethanol.	24 An acre of corn will give off 4,000 gallons of water per day in evaporation.	25
26	27 Popcorn is the official Illinois snack food.	28 The long, silky threads at the top of an ear of corn are the silk.	29 At harvest, a combine separates the kernels from the ear and the rest of the corn plant.	30 Each corn kernel contains four major components: starch, protein, oil, and fiber.	31 One bushel of corn weighs 56 pounds.	



June/July 2019

Consumption, biodegradable, extracting, legumes, amino acids, export

Words & Terms To Learn

Auntie Yang's Soybean Picnic by Ginnie Lo Pod to Plate, The Life Cycle of Soybeans by Julie D. Blunier Oh Say Can You Seed? by Bonnie Worth Recommended Reading

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1
2	3 Soybeans are small round seeds, each with a tiny, brown spot called a hilum.	4	5 Farmers in China began growing soybeans more than 5,000 years ago.	6	7 The soybean plant sprouts small flowers which grow into small pods of soybeans.	8
9	10	11 Each soybean plant grows 60-80 pods, and each pod has 3 to 4 beans inside.	12	13 The soybean is used for animal and human consumption, as well as consumer and industrial use.	14	15
16	17 In 2015, Illinois farmers grew 544.3 million bushels of soybeans, making them the #2 producer in the U.S.	18	19 One bushel of soybeans weighs 60 pounds.	20	21 Biodiesel is a renewable fuel made from soybeans that is biodegradable and non-toxic.	22
23 30	24	25 In 1904, George Washington Carver discovered a method of extracting soybean oil from the plant.	26	27 Soy ink is used in over 95% of America's daily newspapers.	28	29
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	Planting legumes, such as soybeans, helps add nitrogen back to the soil naturally.	2	3 In the fall, the soybean plant turns brown and the leaves drop off before they are harvested.	4	5 The soybean is one of the most versatile seeds grown in the world.	6
7	8	9 One bushel of soybeans provides 11 pounds of crude soybean oil and 47 pounds of soybean meal.	10	1 Soybeans are a source of high-quality protein and contain all eight of the essential amino acids.	12	13
14	15 One acre of soybeans can produce approximately 82,368 crayons.	16	17 Soy-based foam is used for seat cushions in many vehicles.	18	19 The Mississippi River is an important route for delivering soybeans to the Port of New Orleans for export.	20
04						
21	22	23 Almost half of all U.S. soybeans are exported.	24	25 More soybeans are grown in the United States than anywhere else in the world.	26	27



AGMAGS

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