

Dig into farmers' markets this summer



TRY THIS!

Circle all of the food items mentioned in this article.

DID YOU KNOW?

Only two other states—**Florida** and **California**—produce more fresh tomatoes than **Virginia**.



DID YOU KNOW?

Salsa now outsells ketchup in the United States.



Juicy tomatoes, sweet strawberries and crunchy green peppers are just a few of the many fresh fruits and vegetables you can find at a local farmers' market. Food bought here has been grown by a local farmer and is taken to the market to be sold when it is perfectly ripe.

Fresh fruits and vegetables are part of a healthy and nutritious diet. Summertime fruits include blackberries, blueberries, cantaloupes, nectarines, peaches and watermelons. These are rich in antioxidants, vitamins and fiber.

Alongside fresh fruit, you will find many fresh and tasty vegetables at a farmers' market. A trip to the market might lead you to snap beans (string beans), sweet corn, cucumbers and squash. When you fill your plate with these healthy choices, you will have both a colorful and delicious meal!



DIG INTO NEW VOCABULARY

Antioxidants: compounds found in food that help defend your body against cell damage and help reduce the risk of cancer and heart disease

Fiber: found in the chewy parts of plants, helps move food through the digestive system

Word search

Next to this puzzle are 6 facts. Read each fact, and then find the highlighted words in the puzzle. There are a total of **10 highlighted words**.

S K K L Y I W T I F W P T N D
 E I U O Q F M C D A O U R P B
 I P T H S A U Q S R E O D R O
 R I X I R B M L A M C H X B Q
 R A Z K U L W I H E I D B P L
 E V E C I R N H W R L X Z U X
 B T I V N I F J X S E W P S J
 W R E T G T O M A T O E S Y W
 A Q C R A G D N Q G Q Z S S G
 R H I L B M C K R B D G H U O
 T V N R G T I A F I N I W P D
 S L Y E R K J N F X V U T W H
 Q Z E B N W Z L E S B P C D N
 I Q H I X A M N E M M N I N Y
 S I F F B U Y W Q T J X Y Z P

Facts:

- 1 A serving of **strawberries** has more **vitamin C** than an orange.
- 2 Fresh **fruit** is an excellent source of vitamins A and C.
- 3 Local **farmers** grow the food that is sold at farmers' markets.
- 4 Foods high in **fiber** fill you up and aid in digestion.
- 5 While you may find sweet **corn** at a farmers' **market**, most corn in **Virginia** is grown to feed livestock.
- 6 Many **squash** and **tomatoes** are grown on Virginia's Eastern Shore.



TRY THIS!

On a piece of construction paper, create a colorful advertisement for a farmers' market featuring your favorite fruits or vegetables. If you'd like to share it with us, mail it to *Cultivate*, P.O. Box 27552, Richmond, VA 23261-7552.



WHAT'S COOKING

From Market to Kitchen: Fresh salsa recipe

Before beginning, remember to wash your hands and have an adult help with chopping the vegetables.

INGREDIENTS

- 3 large tomatoes, chopped
- 1 medium onion, chopped
- 1 or 2 fresh jalapeño peppers, chopped (removing the seeds will make the salsa less spicy)
- 3 tablespoons fresh cilantro, chopped
- juice from 1 lime
- 1 teaspoon salt

DIRECTIONS

Mix all of the ingredients together in a large bowl. Cover and refrigerate for at least 1 hour. Serve with tortilla chips or vegetables or as a topping for grilled chicken or fish.



Dig into Thanksgiving dinner

DID YOU KNOW?

Only four other states raise more turkeys than Virginia. In fact, Rockingham County in the Shenandoah Valley is the second-largest turkey producing county in the United States.

Rockingham
County



DID YOU KNOW?

Virginia produces more than 554 million pounds of turkey a year!

DID YOU KNOW?

Benjamin Franklin wanted the turkey to be America's national bird!



GOBBLE

GOBBLE



Thanksgiving is a time to gather with family and to give thanks. And, of course, it's time to eat—turkey, stuffing, pumpkin pie and other favorites. The list is enormous!

But where does that food come from?

If you answered "the grocery store," you are only partially correct. There are many people involved in bringing the food to the store shelves.

It all starts on a farm, where a farmer raises the animal or grows the crop.

Animals found on a farm might include cows, hogs, chickens or turkeys. These animals provide much of the protein that you eat. Some farmers do not raise animals; instead they grow plants. Those crops might include fruit, vegetables, grains or cotton.

From the turkey to the cloth napkins, each of the items on your Thanksgiving table began on a farm. So this Thanksgiving, don't forget to thank the farmer.



DIG INTO NEW VOCABULARY

Protein: comes from beef, fish, poultry, eggs, nuts and dairy products. Protein helps you build strong muscles.

Crop: a plant that can be grown and harvested.



TRY THIS!

Thankful Turkey

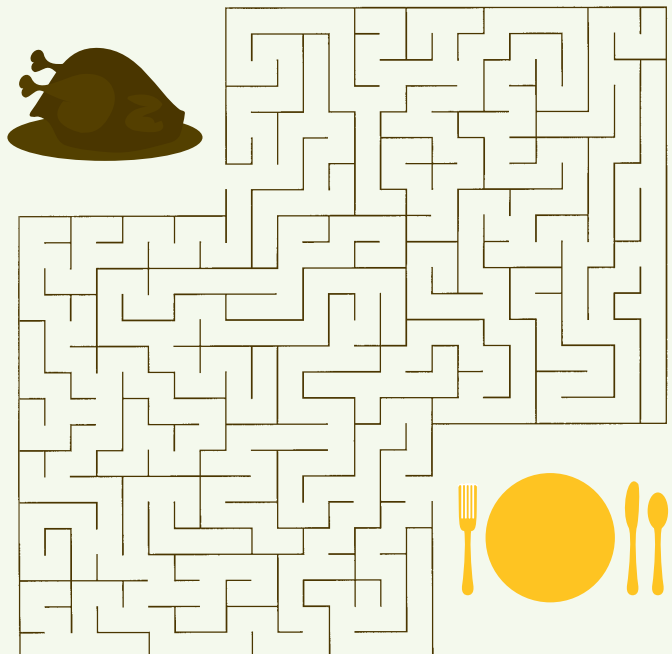
MATERIALS NEEDED:

- red, orange, yellow and brown finger paint
- markers
- 2 paper plates
- wipes (for clean-up)

Directions:

- Squeeze a bit of each color of paint onto one of the paper plates. Keep the colors separate.
- Place your index finger in the red paint.
- Make an arch of red fingerprints around the middle of the second paper plate, forming the top of the turkey's tail.
- Wipe your finger off and place it in the orange paint.
- Make an orange arch underneath the red one.
- Wipe your finger and make a yellow arch under the orange one.
- Use your thumb to make a brown print in the middle for the turkey's head.
- Use a black marker to give your turkey feet, a beak and eyes.
- Write things that you are thankful for around the turkey.

Get the turkey to your table!



SPOTLIGHT ON

George Washington Carver



George Washington Carver, 1906. From the Frances Benjamin Johnston Collection, Library of Congress. Reproduction no. LC-J601-302.

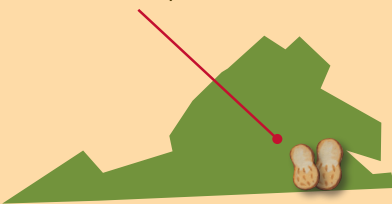
George Washington Carver was born the son of slaves around 1864 in Missouri. From a very young age he was intrigued by nature, and his peers called him the “Plant Doctor.” At age 12 he moved to a new town all by himself so he could attend a school for black children, because the school in his town would not admit him.

Carver held many jobs so that he could go to school and save for college; by 30 he had saved enough. In college he chose to study agriculture. After college he taught at the Tuskegee Institute in Alabama. There he taught his students and black farmers how to make their crops grow better.

Most of the farmers Carver worked with grew cotton, but each year their cotton crop kept getting worse. That was because the cotton was taking too much nitrogen out of the soil. Carver taught the farmers to grow other crops such as sweet potatoes and peanuts, which put good stuff back into the soil. He also showed people that peanuts could be used to make many different things, including lotion, shampoo, glue, paint and ink. In fact, he demonstrated more than 300 uses for the peanut!

DID YOU KNOW?

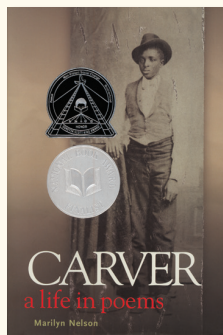
Virginia peanuts are grown in the southeastern part of the state.



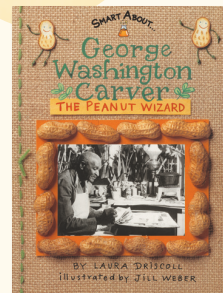
DID YOU KNOW?

Peanuts are part of a healthy diet! They are good sources of protein and fiber.

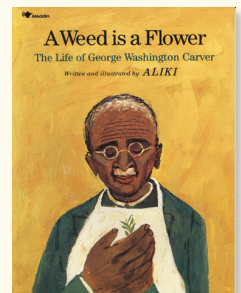
BOOK NOOK—RECOMMENDED READING



Carver: A Life in Poems
by Marilyn Nelson



George Washington Carver: The Peanut Wizard
by Laura Driscoll



A Weed is a Flower: The Life of George Washington Carver
by Aliki



Parents and Teachers: Want more great book ideas? Visit AgInTheClass.org to find Agriculture in the Classroom’s comprehensive book list.

Word search

The words in the **Word Bank** below are all things that George Washington Carver made using peanuts. Find those words in the puzzle (Puzzle key on Page 29).

M A Y O N N A I S E S O Q M R
 N K G O M T L L I H V U A P U
 N O N L N D P T A H P E A E O
 I A I I U O K M F X R S X D L
 Y L A T M E P J P C L X B Z F
 I P D W O O D H G M P D W A I
 L C B Q O L F N S R R M P W P
 Q I T Y D V I X P N J P T V K
 W U N F A V E Y L A W X C T K
 H Z F O A X E H A I Q I S G R
 K U Y H L V K O S M P O C T C
 M R S P I E T H T P A P E R M
 E E F F O C U Y I P Y F C Z I
 Q W D F G G O M C Q E H G E L
 K N I X N P J A H I L H I Z K

Word Bank:

- Coffee
- Flour
- Glue
- Ink
- Linoleum
- Lotion
- Mayonnaise
- Milk
- Paint
- Paper
- Plastic
- Shampoo
- Shaving cream
- Soap



Peanut facts

- The peanut plant probably originated in Brazil and Peru.
- Peanuts are not nuts. In fact, the peanut is a legume and is an underground pea—a member of the bean family. The technical English name for the peanut is groundnut, because it grows underground.
- Runner, Spanish, Valencia and Virginia are the four basic varieties of peanuts grown in the United States. Virginia peanuts are grown in Virginia, North Carolina and South Carolina and are the largest U.S. variety.
- It takes about 540 peanuts to make one 12-ounce jar of peanut butter. One acre of peanuts will make 30,000 peanut butter sandwiches (An acre is about the size of a football field).
- Creamy or chunky? In general, women and children prefer creamy peanut butter while men say they like chunky.

WHAT'S COOKING



TRY THIS!

Peanut butter treat

Make your own peanut butter for a tasty treat! Remember to ask an adult to help you use the blender.

Materials needed:

- measuring cup
- measuring spoon
- spoon
- blender
- 1 cup salted, roasted peanuts
- 1½ teaspoons peanut oil



Directions:

1. Measure 1 cup peanuts, and put them in the blender.
2. Measure 1½ teaspoons peanut oil, and put that in the blender with the peanuts.
3. Blend for about 3 minutes.
4. Scrape the mixture down off the sides of the blender with your spoon, and blend for another 3 minutes.
5. Enjoy your peanut butter with toast, carrots, celery, an English muffin, apple slices or crackers!

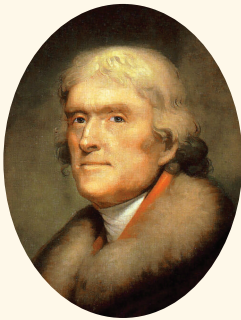
A PEANUT SAT ON A RAILROAD TRACK

(Sung to the tune of "Pop Goes the Weasel")

A peanut sat on a railroad track.
 Its heart was all a-flutter.
 A train came chugging down the
 track—Whoops! Peanut Butter!



Dig into Gardening



THOMAS JEFFERSON

Third president of the United States
(1743-1826)

Spring is the perfect time for gardening. Whether your garden includes beautiful flowers, healthy vegetables or both, it is a great way to enjoy warm spring weather. In fact, people have enjoyed this hobby for centuries.

One famous gardener was Thomas Jefferson, who grew more than 330 types of vegetables and 170 types of fruit at his home, Monticello, near Charlottesville.

Gardening was such a passion of his that he wrote both a garden book and a farm book.

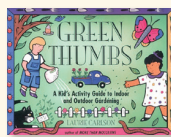
Jefferson's 2-acre vegetable garden included tomatoes, asparagus, eggplant, radishes, beans, carrots and peas, along with many other types of vegetables. He enjoyed experimenting in his outdoor "laboratory" with vegetables from other countries, like peppers from Mexico.

In addition to his vegetable garden, Jefferson maintained an 8-acre fruit garden or "fruity," as he called it. The orchard included apples, pears, cherries, plums and nectarines. Like the vegetable garden, the orchard included many fruits from other countries.

BOOK NOOK—RECOMMENDED READING

DID YOU KNOW?

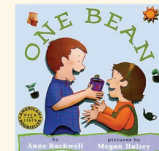
- Peas were Thomas Jefferson's favorite vegetable. He grew 15 different types and even held a neighborhood contest to see which farmer could bring the first peas to table in spring.
- Jefferson's vegetable garden was organized by the plant part that people eat—roots, leaves or flowers.



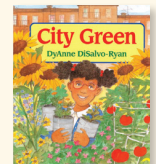
Green Thumbs:
A Kid's Activity
Guide to Indoor and
Outdoor Gardening
by Laurie Carlson



**Growing Vegetable
Soup**
by Lois Ehlert



One Bean
by Anne Rockwell



City Green
by DyAnne
DiSalva-Ryan



Parents and Teachers: Want more great book ideas? Visit AgInTheClass.org to find Agriculture in the Classroom's comprehensive book list.

CLIP AND SAVE



You can start vegetable plants or herbs—like these—in a clear plastic food container.

TRY THIS!

Homegrown salad

Thomas Jefferson loved salads, which were made with ingredients from his own garden. You can grow your own salad too!

MATERIALS NEEDED:

- clear plastic food container with a lid (the type you would get at a salad bar)
- potting soil
- various seeds, such as lettuce, radish, carrot and cucumber
- water

Directions:

- Fill the container with potting soil.
- Use directions on the back of seed packets to determine how deep and how far apart to plant the seeds.
- Water the planted seeds until the soil is moist.
- Place the open garden container in indirect light, and add water as needed.
- Close the lid when you see the first signs of growth.
- Remove the young plants when they are tall enough to touch the closed lid.
- Transplant them to a larger container or an outdoor garden.

Enjoy your homegrown salad!

MYSTERY MESSAGE

Unscramble the tiles below to reveal the mystery message!

FU	ING	RYO	EVE	GAR
NE!	IS	NF	OR	DEN

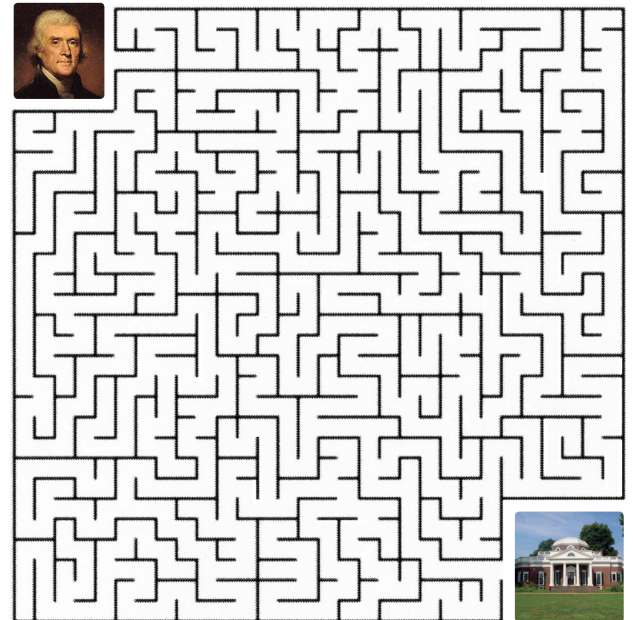
Answer on opposite page.

DID YOU KNOW?

If certain plants are grown next to each other, they can keep harmful insects away! Tomatoes like garlic and parsley. Carrots like dill and sage. Asparagus likes tomatoes. Try this in your own garden!

MONTICELLO MAZE

Help Thomas Jefferson get home to Monticello





Dig into **Dairy!**



Ice cream is the perfect treat on a hot summer day. As a matter of fact, July is National Ice Cream Month.

But have you ever considered where ice cream comes from? The main ingredient is milk, which comes from dairy cows. The most commonly recognized dairy cow is the Holstein, which has large black spots. Other dairy cow breeds include Guernsey, Ayrshire and Jersey.

Cows have four stomachs, and it's a good thing, because they spend almost seven hours a day eating. Cows eat about

100 pounds of grass or feed and drink about 50 gallons of water a day—about enough water to fill a bathtub.

Dairy farmers milk their cows at least twice a day. One cow produces about 100 glasses of milk a day, and a cow's udder can hold between 25 and 50 pounds of milk!

Milk is a very important source of calcium, which helps build strong bones and teeth. You should have at least three servings of milk products a day. In addition to ice cream, milk is used to make cheese and yogurt.

UDDERLY AMAZING!

A cow gives more than 2,000 gallons of milk a year.

DID YOU KNOW?

- Immigrants arriving at Ellis Island were served vanilla ice cream as part of their "Welcome to America" meal.



- The first ice cream parlor in America opened in New York City in 1777, and the ice cream cone made its debut at the 1904 World's Fair in St. Louis.

COW CRAFT

MATERIALS

- large white paper plate
- small white paper plate
- black construction paper
- pink construction paper
- black marker
- glue
- hole punch
- white or black pipe cleaner or yarn



Directions

1. Flip both plates upside-down. Glue the small plate near the bottom of the large plate.
2. Cut black spots from construction paper, and glue them onto the cow.
3. Cut a large oval from the pink construction paper, and glue it onto the small plate (See photo). Use the black marker to draw eyes, a nose and a mouth.
4. Cut small ovals (You also can trace your thumb) from the black and pink construction paper. Glue behind the small plate for ears.
5. Punch a hole at the top of the large plate. Thread the pipe cleaner or yarn through the hole to make a tail. You also can use the tail to hang and display your cow.

Source: busybeekidscrafts.com

TRY THIS!

You do the math!

It takes about 16 pounds of milk to make one half-gallon of ice cream. If Bessie's udder holds 48 pounds of milk, how many gallons of ice cream will that make?



Make your own ice cream in a bag!

MATERIALS

- 1 tablespoon sugar
- ½ cup milk or half-and-half
- ¼ teaspoon vanilla
- 6 tablespoons rock salt
- 1 pint -size plastic food storage bag
- 1 gallon-size plastic food storage bag
- ice cubes



Directions

1. Fill the large bag half full of ice.
2. Add rock salt.
3. Combine milk, vanilla and sugar in the small bag and seal the bag.
4. Place the small bag inside the large bag, and seal the large bag.
5. Shake both bags until the mixture in the small bag becomes ice cream. It will take about 5 minutes.
6. Open, scoop and enjoy!

Word search

C	H	O	C	O	L	A	T	E	S	T	H	E	F	A	Calcium
R	I	O	M	V	D	V	K	E	G	O	I	A	U	F	Chocolate
U	N	C	B	U	R	A	L	T	L	P	Y	D	X	Y	Cone
E	R	B	E	E	I	K	I	S	I	P	R	N	T	D	Cow
K	L	I	M	C	N	C	T	R	I	I	G	U	T	H	Dairy
P	G	R	I	I	R	E	L	V	Y	N	K	S	V	V	Farmer
B	A	W	R	L	I	E	E	A	L	G	M	L	D	E	Holstein
F	Z	P	H	N	R	M	A	M	C	S	O	T	W	T	Ice cream
V	S	G	A	T	W	D	F	M	N	C	L	A	E	G	Milk
T	S	A	L	L	I	N	A	V	Y	O	G	U	R	T	Scoop
Q	Q	P	G	S	J	E	A	E	W	O	W	K	D	D	Sprinkles
G	Q	O	Z	W	S	Y	L	Y	E	P	Q	O	H	Y	Sundae
A	U	W	F	N	R	I	X	K	D	T	I	G	C	Q	Toppings
T	G	A	C	E	P	D	L	F	N	N	A	N	O	X	Vanilla
P	V	A	R	E	S	T	O	O	P	B	W	X	Z	A	Yogurt

DIG INTO

Christmas tree farming



People buy Christmas trees in December, but Christmas tree farmers work year-round to produce the best trees they can.

Did you know that fresh Christmas trees actually come from a farm?

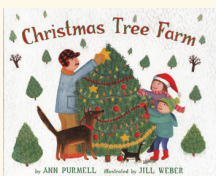
Virginia has more than 7 million Christmas trees growing on hundreds of acres. Christmas tree growers have to work the whole year to be ready for harvest in the fall. Right after Christmas, farmers start walking their fields to see where new trees need to be planted, and once March rolls around, it is time to plant new **seedlings**. During the spring and summer months, Christmas tree farmers mow weeds, buy supplies and start shaping their trees so they can be sold.

August is when growers mark the trees

they want to sell. During September and October seedlings that did not live through the summer are replaced, and farmers start preparing for customers to arrive. Farmers will start a process called **baling**, which is binding trees with twine or netting so that they are easier to carry.

Some families choose to cut down their own trees in December, while others buy the ones that already have been cut by the farmer. Once Christmas has passed farmers take a few days off and are back at work again!

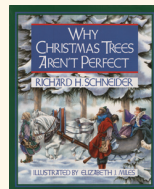
BOOK NOOK—RECOMMENDED READING



Christmas Tree Farm
by Ann Purmell



A Wish to be a Christmas Tree
by Colleen Monroe



Why Christmas Trees Aren't Perfect
by Richard Schneider



Parents and Teachers:

Want more great book ideas? Visit AgInTheClass.org to find Agriculture in the Classroom's comprehensive book list.

TRY THIS!

EDIBLE TREES

MATERIALS

- paper plate
- sugar ice cream cone
- green cake frosting
- small candies
- baking sprinkles

Directions

- Turn the cone upside down on the paper plate.
- Cover the entire cone with green frosting.
- Decorate the cone with candy and sprinkles.
- Now you have your very own edible Christmas tree!



CHRISTMAS CLASSICS

- In 1856 Franklin Pierce, the 14th president of the United States, placed the first Christmas tree in the White House.
- The first Christmas tree farm was started in 1901, when W.V. McGalliard planted 25,000 Norway spruce trees on his farm in New Jersey.

Fir facts

- For every Christmas tree that growers harvest, two to three new seedlings are planted.
- Christmas trees are grown in all 50 states.
- Christmas trees are coniferous trees, which means that they have narrow needles that drop continually, not all at once. That is why coniferous trees are sometimes referred to as evergreens.
- One acre of farmed Christmas trees supplies enough oxygen for 18 people.
- Pine and fir trees are among the most popular choices for Christmas trees.

Tree scramble

ifr
rafm
tere
niglab
hervsta
degnesli
decmerbe
iorencusof

Directions

- Unscramble each of the clue words. Each word can be found on Page 28 or 29.
- Copy the letters in the numbered cells to other cells with the same number.



Become water-wise!



Chesapeake Bay

Water is used by many people in many ways.

People are not the only ones who need water, though. It is also a critical resource for crops and animals. The Earth, however, has a limited amount of water that constantly keeps going around and around in a cycle. In fact it's called the water cycle, and it has five steps: sunlight, condensation, precipitation, evaporation and accumulation.

The sun is the energy behind the cycle. Warmth from the sun causes the water in lakes, rivers and oceans to heat up and turn into water vapor. This is called evaporation.

During evaporation the water vapor goes up into the atmosphere, where it changes back into a liquid and forms clouds. This process is called condensation.

When the condensation in clouds

gets heavy enough, it falls to the Earth as precipitation. The temperature will determine whether that precipitation is liquid—rain—or solid—snow. Lastly, when precipitation gathers back on the Earth, this is called accumulation; and the cycle starts again!

Because water is so important for farmers there are several things that they do to conserve it and keep it clean. For example, they use watering systems that put water directly at crop plants' roots so more water goes straight to the plant instead of evaporating. Farmers also water crops at times when the plants will benefit most. Many of them also plant trees and grasses between their crops and streams to create a buffer zone.

What are some things that you can do at your house to conserve and protect water?

TRY THIS!

COLOR AND LABEL THE WATER CYCLE

Use words from the Word Bank below.

Word Bank:

- evaporation
- precipitation
- condensation

QUESTION & ANSWERS

Q: What moves nutrients in your body and dirt in the streets?
A: Water

Q: What do your body and the planet Earth have in common?
A: Both control their temperatures
 with water.

Q: What can live a month without food but only a week without water?
A: You!

WEARING THE WATER CYCLE: Create your own bracelet!

MATERIALS

- white beads, blue beads, clear beads and yellow beads
- yarn or a leather strap

Directions

1. String your beads on the bracelet in the following order:
 - yellow, to represent the sun
 - clear, for evaporation, which is caused by the sun
 - white, for condensation in the clouds
 - blue, for precipitation that falls from the clouds when the condensation gets too heavy.
2. Tie the loose ends around your wrist to wear your own water cycle bracelet!

Water Words

E N W M K N E V R E S N O C R
 J C O R S O P U H V T S L E E
 L R N I M I X E C U D N W V F
 X O B X T T S J O U B A V A F
 H P K N I A R L O P T N E P U
 V S K U I L T L A E L A B O B
 N E M R X U C I R M R E F R X
 R U D Z P M E C P T I J K A B
 V P S L B U Y P H I Y N L T C
 L V A B Y C G W E V C L A I I
 F Z N P L C Y F A R M E R O J
 V S X E T A Z L G Z Q S R N B
 C O N D E N S A T I O N F P H
 W Q S H P K Q F B R F L V B C
 Z U S C O O C Z X T B R J C X

accumulation
 animals
 buffer
 clouds
 condensation
 conserve
 crops
 earth
 evaporation
 farmer
 people
 precipitation
 rain
 sun
 water cycle



DIGGIN' FARM ANIMALS AND THEIR CARETAKERS

Farmers who raise pigs and other animals are called livestock producers.

DID YOU KNOW?

- There are more chickens in the world than people.
- A dairy cow consumes 35 gallons of water, 20 pounds of grain and 35 pounds of hay or silage in just one day.
- Pigs have no sweat glands.
- Today's American farmer raises enough food for about 155 people worldwide each year. In 1960, that number was 26 people.

There are many different types of farmers. Some grow crops, while others raise animals, and some do both.

Farmers who raise animals such as cows, chickens, turkeys, sheep or pigs are called livestock producers. It is their job to make sure that their animals are well taken care of. Animals rely on farmers to provide them with food, water, shelter and care to keep them healthy. In turn, people rely on farm animals for food and clothing.

All animals share the same basic needs of food and water. Some farm animals graze on pastureland and might be provided with extra hay or silage. Silage is made when a plant such as corn or grass is cut, finely chopped, and packed tightly to store

for animals to eat later. Farmers carefully choose the correct type and combination of grains and other foods for their animals in order to give them the best possible nutrition. They also make sure their animals have plenty of clean water.

In addition to food and water, farmers provide their animals with shelter to protect them from severe weather and to keep them safe. Lastly, in order to keep their animals healthy, farmers will seek the help of veterinarians. Veterinarians are doctors who take care of animals and make sure they stay healthy. Some veterinarians take care of pets like dogs or cats, while others, called large animal veterinarians, specialize in the care of farm animals.



Hand puppets

↑ TRY THIS!

Use lunch-size paper bags to make farm animal hand puppets!

↓ **TRY THIS!** Make your own **Animal Care Farm Charm** to represent the ways that farmers care for their animals.

Farm Charm!



MATERIALS

- blue glitter, to represent water
- cornmeal or grits, to represent ground-up grain
- shreds of brown paper, to represent hay and silage
- red or gray construction paper cut into small squares, to represent shelter
- “googly” eye, for crafts, because farmers have to keep an eye on their animals’ health and well-being
- small zip-top plastic bag, of the size used for beads and jewelry
- yarn

Directions

Place a pinch of the first three materials and then one construction paper square and one googly eye into the plastic bag. Zip the top of the bag, and punch a hole above the zipper. Thread yarn through the hole and tie it to wear the charm or hang it up.

Farm scramble

Directions

Unscramble each word to spell a farm animal or one of its needs. Then copy the letters in the numbered boxes to the matching square below to reveal the mystery message.

WOC	<input type="text"/>	<input type="text"/>	<input type="text"/>						
GIP	<input type="text"/>	<input type="text"/>	<input type="text"/>						
ROESH	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
PESHE	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
EUTYKR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
KEHNICC	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
WEART	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
DOOF	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					
RETHELS	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

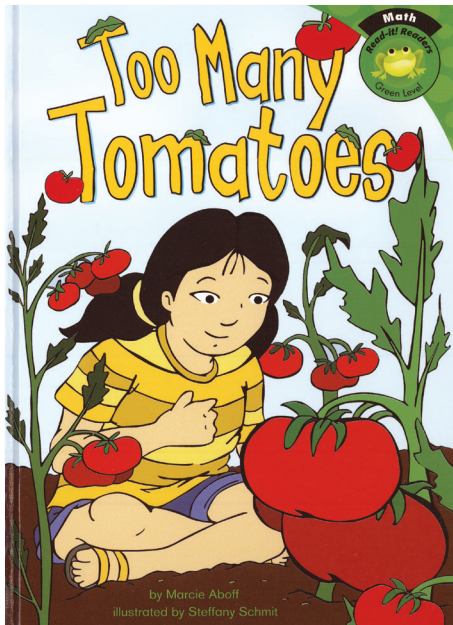
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1	2	3	M	4	5	6	7	8	9

DIG INTO SUMMER READING!



Summer is the perfect time to discover new books. Here are three good ones, as well as activities you can do after reading each.

Virginia's Agriculture in the Classroom program has a big list of recommended books on its website at AgInTheClass.org.



Too Many Tomatoes

(SUGGESTED AGE: 5-7)

Rachel helps Mr. Thomas plant his vegetable garden and produces a bumper crop of tomatoes! Come along as she tends the garden and then shares with the neighbors.

DID YOU KNOW?

- The average American eats 22 pounds of tomatoes a year!

TRY THIS! The neighbors in *Too Many Tomatoes!* create various dishes with their fresh tomatoes. Here's one you can try at home (Remember to have an adult help with the cutting).



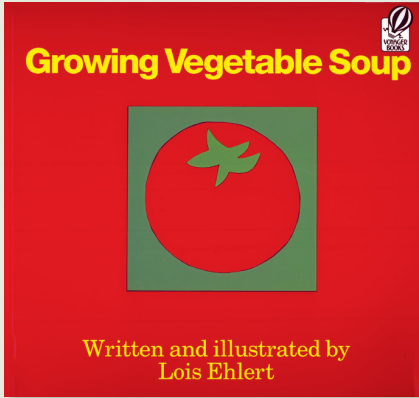
Garden Vegetable Wraps

INGREDIENTS

- ½ cup garden vegetable-flavored cream cheese
- 4 flour tortillas
- 1 cup spinach leaves
- 1 large tomato, diced
- ¾ cup shredded carrot
- 8 slices of cheese
- 1 bell pepper, chopped

DIRECTIONS

1. Spread 2 tablespoons of cream cheese over each tortilla. Top with spinach and tomato to within 1 inch of the tortilla's edge. Top with shredded carrot, then cheese, and then chopped bell pepper.
2. Roll up each tortillas tightly. Serve immediately, or wrap them securely with plastic wrap and refrigerate no longer than 24 hours.



Growing Vegetable Soup

(SUGGESTED AGE: READ-ALoud OR 3-7)

This colorful book shows the process of growing a garden, and the different vegetables within it. It includes a recipe at the end to make your own vegetable soup.

TRY THIS! The first step the father and child take in *Growing Vegetable Soup* is to plant the seeds. You can do the same thing!

Seed Viewer

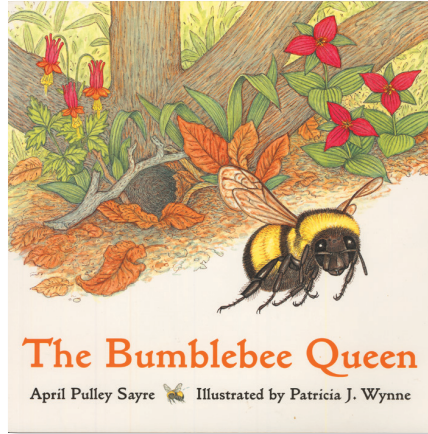
MATERIALS

- Clear plastic punch cups
- potting soil
- vegetable or flower seeds
- water



DIRECTIONS

1. Fill a plastic cup with potting soil.
2. Press seeds into the soil, making sure to place them against the inside of the cup so you can see them.
3. Keep the soil moist, and place the cup in a warm, sunny place.
4. In a few days you will be able to see the seeds sprout and grow!
5. You can replant your sprouts in a larger container or in your backyard garden.



The Bumblebee Queen

(SUGGESTED AGE: 4-7)

Journey along with the Bumblebee Queen as she collects nectar for her young and tends the hive, and learn about the life cycle of a bumblebee.

DID YOU KNOW?

- Honey bees communicate with each other by dancing.

TRY THIS! Create your own Bumblebee Queen bookmark.

Bumblebee Queen bookmark

MATERIALS

- wooden craft stick
- white and black pipe cleaners
- “googly” eyes for crafts
- craft glue
- yellow and black markers
- large yellow craft pom-pom



DIRECTIONS

1. Use markers to draw alternating yellow and black sections on the craft stick.
2. Glue pom-pom to top of stick, and then glue two googly eyes to the pom-pom.
3. Twist white pipe cleaner around the middle of stick to form wings.
4. Cut a 2-inch segment off a black pipe cleaner, and twist it around the top of the stick to create antennae.

Summer garden word search

B M C S X P I D S P R K U U A
G A R D E N E Q C E M C N K Z
Z X E O T E U O B P T U U J P
M Y L I W A R M Z P C H C Y E
K P B N S N U P D E R S Q B J
R W A H Z C O P R R S U E E K
A Z T W U P I C K E A E L A D
E B E C T L I O S R T P E N I
Y I G D N O B X T D N A C D V
Z S E I W D M T N A L P W S I
Y Q V I N T S A V U S H S N R
L V Z G H R K C T H A M Z P P
P F N K T I Q V N O F U I I B
O G A A X V N U Z S Y Q I H V
O F R O U L U J J Z O C G H R

- bean
- corn
- cucumber
- garden
- pepper
- pick
- plant
- seed
- shuck
- soil
- squash
- tomato
- vegetable
- water
- weed
- worm

Answers on Page 29.



DIG INTO COOKIES

A favorite holiday tradition for many is baking cookies. Whether your favorite is gingerbread, sugar or chocolate chip, the ingredients began on a farm. Some, like flour or eggs, might have come from a Virginia wheat or poultry farm. Others, like sugar, vanilla extract or chocolate, most likely came from somewhere else.

Join Grandma in the book *All in Just One Cookie* by Susan E. Goodman as she searches for the many ingredients in her special chocolate chip cookies:

Grandma's Recipe

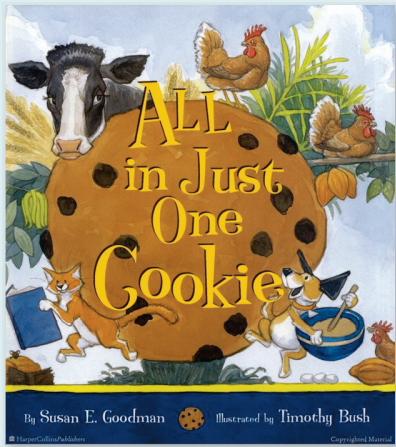
INGREDIENTS

- 1 hungry Virginia dairy cow
- 2 stalks Hawaiian grass
- 1 teaspoon flower seeds from Madagascar
- 2 days hard work from a Virginia hen
- 1 teaspoon Pacific Ocean
- 1 teaspoon dried-up Wyoming lake
- 2¼ cups Virginia wheat field
- 2 cups West African beans

DIRECTIONS

Read the book, and identify each of the actual ingredients represented above. Then make cookies to enjoy (See Page 30 for actual recipe).





All in Just One Cookie

(SUGGESTED AGE: 4-8)

You won't believe what it takes to make one cookie!

TRY THIS! In *All in Just One Cookie*, Grandma needed to visit a dairy farm for butter. Dairy cows produce milk for us to drink, as well as milk that's made into dairy products such as cheese, yogurt and butter. You can make your own butter at home.

MATERIALS

- small baby food jar or other small container with lid
- heavy whipping cream



DIRECTIONS

Fill the container about half-full with heavy whipping cream. Place the lid on securely, and begin shaking the container! After about 20 minutes, you will be able to strain off the butter fat and taste the butter that's left in the container.

TRY THIS! Salt and flour can be used in more than just cookies. You can even make your own play dough!



MATERIALS

- zip-top plastic bag
- warm water
- 1 cup flour
- ½ cup salt
- rolling pin
- cookie cutters
- acrylic paint

DIRECTIONS

Place flour and salt in the plastic bag. Add warm water, one teaspoon at a time, and knead until the mixture forms a ball of dough. Take the dough out of the bag, and place it on a lightly floured surface. Roll the dough out with the rolling pin, and then cut shapes with the cookie cutters—or shape your own designs. Allow the dough to air-dry. Once it is dry, you can paint it.

Solve It! Unscramble the tiles to reveal a message (Answer on Page 30).

S 1	A 2	G 3	P 4	ND 5	AIR 6	K — 7	MIL 8	KIE 9	WIN 10
NIN 11	COO 12	A 13							



A statewide survey found that there were about 215,000 horses—and ponies, donkeys and mules—in Virginia. Quarter horses and thoroughbreds were the two most popular breeds.



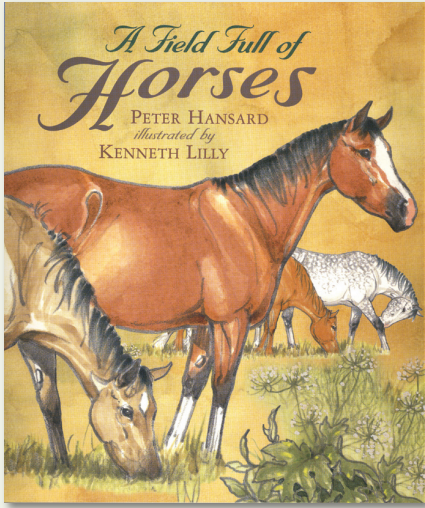
DIG INTO VIRGINIA HORSE SENSE

DID YOU KNOW?

- The United States' longest-running horse show, the Upperville Colt and Horse Show, takes place in Fauquier County each year. It began in 1853.

Virginia is the nation's fifth-largest equine—or horse—state. The equine industry began in Virginia in 1610 with the arrival of the first horses in the Jamestown colony. Horses were valuable to the colonists. They were used to transport

people and products and to pull plows and tread grain from harvested wheat plants, and some even served in the military. Today, Virginia is still a vibrant horse state, and horses are used for racing, pleasure riding, hunting, competitions and breeding.



A Field Full of Horses

(SUGGESTED AGE: 4-7)

The beauty of horses is captured in *A Field Full of Horses* by Peter Hansard. This softly illustrated book takes readers on a ride through the pasture using descriptive writing and creative imagery. Readers will learn about different types of horses and basic horse care.

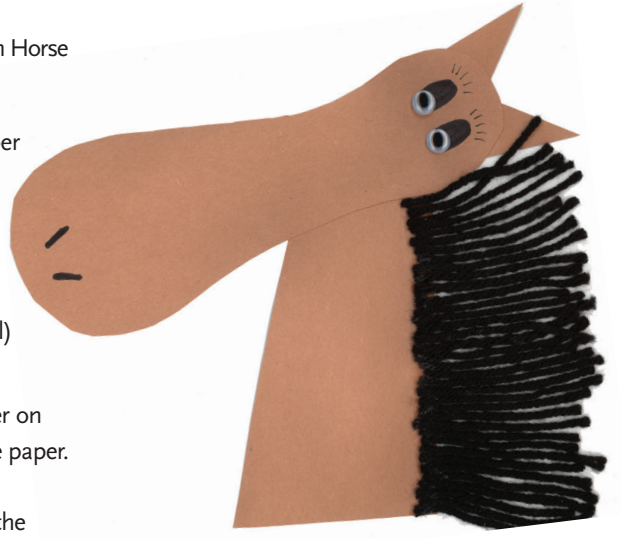
TRY THIS! Make Your Own Horse

MATERIALS

- brown or black construction paper
- scissors
- markers
- brown or black yarn
- glue
- “googly” eyes for crafts (optional)

DIRECTIONS

1. Place a piece of construction paper on the floor. Trace your shoe onto the paper. This will be the horse's head.
2. Use the rest the paper to cut out the ears and neck.
3. Cut 2-inch pieces of yarn for the horse's mane. Glue to the neck.
4. Complete your horse by adding eyes and nostrils.



Horse breed round-up

A breed is an animal group that shares many of the same characteristics. There are more than 100 different breeds of horses. Horses in the same breed can have a similar appearance, size and stride.

Find the different horse breeds in the word search below (Answers on Page 29).

Make your own feed snack!

INCLUDE THE FOLLOWING:

- Blue jellybeans** = water
- Corn cereal squares** (such as Chex) = corn, which provides protein and carbohydrates
- Granola** = oats, which provides protein and vitamin B
- Shredded whole-wheat cereal biscuits** (such as Shredded Wheat) = hay, which provides protein, minerals and vitamins
- Toasted oat cereal** (such as Cheerios) = bran, which provides protein and carbohydrates

M Y A S O O L A P P A D O C I
 Q U A R T E R H O R S E N L M
 F U F L M A F E D Y M U I Y W
 A A L T L E N N R O D P M D E
 I H O Y E E A D R I I R O E B
 C Y X N T L B G A Z H M L S H
 A A I A T T A A A R D S A D S
 A J S E Y N E N L I D L P A L
 Z V H P O T N I P A U B G L E
 T S J C I E P I W Q F B R E W
 E X J Q R A A R A B I A N E Z
 C R Q E I V N Z C C J C S M D
 A T N E H R W Z N E X N I Y J
 B B X I B T A P N S L R R L T
 M C T P Z R D N K F L Z C D U

- Appaloosa
- Arabian
- Azteca
- Caspian
- Clydesdale
- Falabella
- Lipizanner
- Morgan
- Palomino
- Pinto
- Quarterhorse
- Shetland
- Shire
- Standardbred
- Welsh



DIG INTO CORN, AN 'A-MAIZING' FOOD

DID YOU KNOW?

- Archaeologists think Native Americans might have been growing corn as long as 7,000 years ago.
- Corn is America's No. 1 field crop.
- Corn is grown on every continent except Antarctica.

Called "maize" by Native Americans, corn was a completely new food for the American colonists, as it is native only to North America, Central America and South America. In fact, in the early 1600s the American Indians introduced the settlers to this crop and taught them how to grow and prepare it.

Colonists ate corn both as a vegetable and a ground-up grain. As a result, corn was an important crop that appeared in many forms on Colonial tables.

Benjamin Franklin even called it "one of the most agreeable and wholesome grains in the world."

Succotash, a common Colonial corn dish, gets its name from a Native American word that meant "boiled corn kernels."

Today, corn for grain or silage—a mixture of grains that is fed to farm animals—is raised in nearly every Virginia county. Virginia farmers harvest about 340,000 acres of corn for grain each year.

TRY THIS! Corn prints

While we often think of corn kernels as being yellow, Native Americans grew several different types. Colors included red, white, blue and black.

MATERIALS:

- yellow and green construction paper
- scissors
- glue
- finger paints (yellow, white, red, blue and black)

DIRECTIONS:

1. Cut the yellow and green paper to make a corn cob and husks. Glue them together.
2. Add the "kernels" by dipping your fingers into the paint and stamping them onto the cob.



You can make your own Indian corn print!

TRY THIS! **Homemade johnnycakes**

Do you ever enjoy pancakes for breakfast? Americans living during colonial times enjoyed a similar food. These corncakes would be eaten for breakfast with maple syrup or apple butter, or they would be wrapped up and given to travelers for a snack.

Be sure to have an adult help you make these, and always be extra-careful when working around the stove.

INGREDIENTS

- 1 cup water
- 2 tablespoons butter
- 1 cup cornmeal
- ½ teaspoon salt
- ½ teaspoon sugar
- ½ cup milk
- butter for frying



DIRECTIONS

1. Heat water and butter in a saucepan until they boil.
2. Put cornmeal, salt and sugar in a mixing bowl while water and butter are boiling.
3. Pour boiling water and butter into mixing bowl. Add milk, and stir with a wooden spoon until batter is mixed.
4. Over medium heat, melt a pat of butter in a skillet.
5. Drop six spoonfuls of batter into the skillet. Cook for 3-4 minutes or until bubbles form on the surface of the cakes. Flip the cakes over with the spatula, and cook the other side.
6. Remove the cakes with a spatula, and place them on a platter. Wrap them in foil to keep them warm.
7. Dab more butter on the skillet, and continue cooking the rest of the johnnycakes.
8. Serve with maple syrup or apple butter.

Source: *Hasty Pudding, Johnnycakes, and Other Good Stuff: Cooking in Colonial America*



Hasty Pudding, Johnnycakes, and Other Good Stuff: Cooking in Colonial America

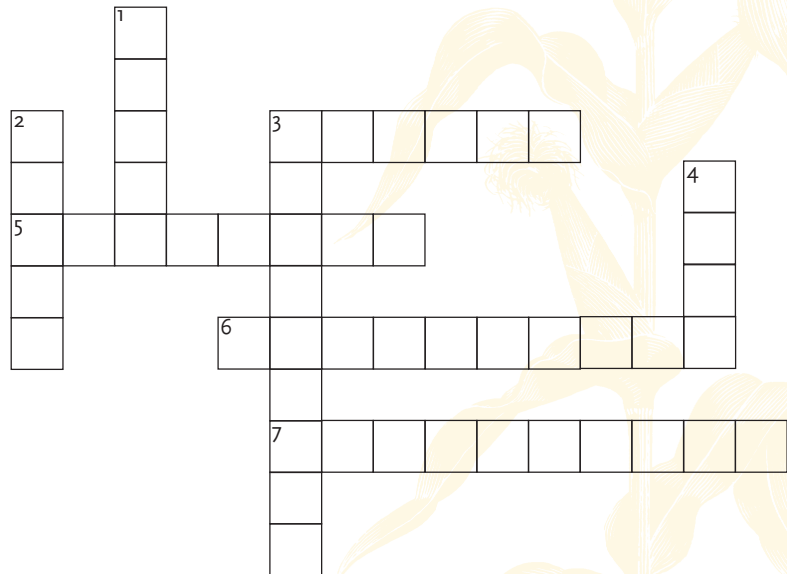
(SUGGESTED AGE: 8–11)

Many people often enjoy Mexican, Chinese or Italian food, but what is American food? How did early settlers cook without grocery stores, refrigerators or microwaves?

Hasty Pudding, Johnnycakes, and Other Good Stuff by Loretta Frances Ichord seeks to answer those questions. It includes Colonial recipes and their modern adaptations.

Corn crossword

Words in this puzzle appear on these two pages (Answers on Page 29).



Across

3. A mixture of grains that is fed to animals
5. Corn is native only to the _____.
6. This Colonial food could be eaten for breakfast or as a snack on a trip.
7. Corn is grown on every continent except _____.

Down

1. Native American word for corn.
2. Corn can be eaten as a vegetable or a _____.
3. The word _____ comes from a Native American word meaning “boiled corn kernels.”
4. Indian corn was not always yellow; it could be red, white, _____ or black.

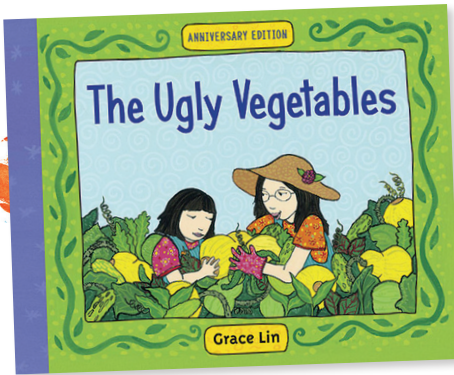
DIG INTO

A GARDEN OF SUMMER READING!



Summer is when many people enjoy growing their own food, right in their backyards.

Not all gardens look the same. You can read about unique gardens in *The Ugly Vegetables*, *City Green* and *The Curious Garden*.



The Ugly Vegetables by Grace Lin

ISBN: 9781570914911
(SUGGESTED AGE: ELEMENTARY)

This book takes readers into the backyard for the process of preparing, planting, and harvesting a vegetable garden. Mother and daughter join their neighbors in planting a garden, but the daughter wonders why their garden can't be as pretty as those of their flower-growing neighbors. Discover why sometimes the best things come in the strangest packages!

TRY THIS!

Enjoy vegetables in a soup, just like the characters in *The Ugly Vegetables*. Remember to have an adult help you in the kitchen. You can use frozen vegetables or fresh ones.

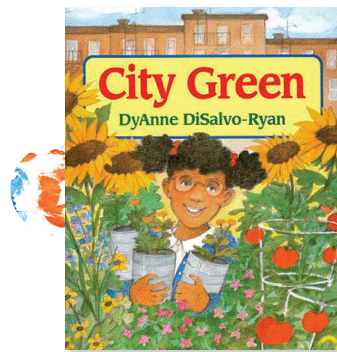
INGREDIENTS

- 2 bottles tomato juice
- 2 packages frozen mixed vegetables
- 1 onion, chopped
- 2 stalks celery, chopped
- salt and pepper



DIRECTIONS

Put all ingredients in a large saucepot, and cook over medium heat until boiling. Reduce heat and simmer until vegetables are cooked through.



City Green by DyAnne DiSalvo-Ryan

ISBN: 9780688127862
(SUGGESTED AGE: ELEMENTARY)

You don't have to live in a rural area to enjoy a garden. Join Marcy and her neighbors as they transform a vacant lot into a vibrant community garden.

TRY THIS!

Marcy and Miss Rosa started their garden in a coffee can – you can do the same thing!

SUPPLIES

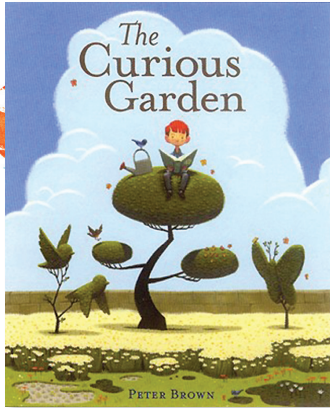
- empty coffee or large soup can
- nail and hammer (to punch drainage holes in the bottom of the can)
- paint
- small rocks for drainage
- potting soil
- seeds of your choice



DIRECTIONS

1. Wash out your can and, with an adult's help, punch drainage holes in the bottom of the can.
2. Use the paint to decorate your can.
3. Place a small handful of rocks at the bottom of the can for drainage.
4. Fill the rest of the can with potting soil.
5. Plant your seeds the appropriate depth according to the seed pack.
6. Water the seeds, place the can in a sunny spot and watch to see what happens!





The Curious Garden by Peter Brown

ISBN: 9780316015479
(SUGGESTED AGE:
LOWER ELEMENTARY)



Watch Liam discover and tend a railway garden and bring life and color to his once-dreary city when the curious plants begin to spread.

TRY THIS!

Brighten up your house with some artwork using vegetables as stamps.



SUPPLIES

- fruits and/or vegetables, such as apples, potatoes, peppers, cucumber
- kitchen knife
- paint in a shallow dish
- construction paper

DIRECTIONS

1. Begin by having an adult help you cut the fruits and vegetables in half. You might also choose to carve designs in them.
2. Dip the food in the paint, and use it to stamp on the construction paper.

Solve it!

Unscramble the tiles to reveal a message! Answer below.

E E D	N T	E A D	D R	A S	A N	P L A
1	2	3	4	5	6	7



Parents, grandparents and teachers! For more summer reading suggestions and activities, visit Agriculture in the Classroom online at AgInTheClass.org.

Answer to Solve it! P L A N T A S E E D A N D R E A D

SEASONAL SPOTLIGHT:

WINTER ON THE FARM



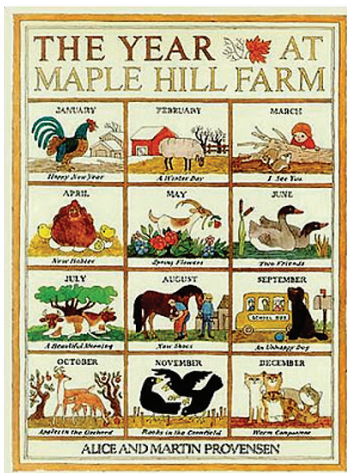
Winter is a quiet time on the farm. Farmers make sure that their animals have shelter as well as enough food to eat. They also check to make sure that their water does not freeze. Winter is also time to fix machines and buy seeds to plant in the spring.

DIG INTO

SEASONS ON THE FARM

The vibrant fall leaves have become crunchy piles to jump in, and on farms all over Virginia harvest time is coming to a close. Winter is almost here, and with it will come more changes where you live and on the farm.

Learn about those changes, as well as the other seasons on the farm, in the Alice and Martin Provensen book *The Year at Maple Hill Farm*.



TRY THIS!

Seasonal tree mobile

MATERIALS

- wire clothes hanger
- brown finger paint
- 4 paper plates
- markers or crayons
- yarn
- hole punch

DIRECTIONS

1. On a paper plate, use a marker to draw a tree trunk.
2. Next, dip your hand into brown finger paint, and press down onto the plate just above the tree trunk, creating branches.
3. Decorate your tree according to the season. In winter it will be bare, while in fall it will have different-colored leaves. There will be small green leaves in the spring and larger ones in the summer. Use the other three plates to create a tree for each of the four seasons.
4. After the paint has dried, punch a hole at the top of each plate.
5. Use the yarn to hang the plates at varying heights from the hanger.
6. Hang your mobile where the plates can sway and spin.



TRY THIS!

Winter farm snow globe

MATERIALS

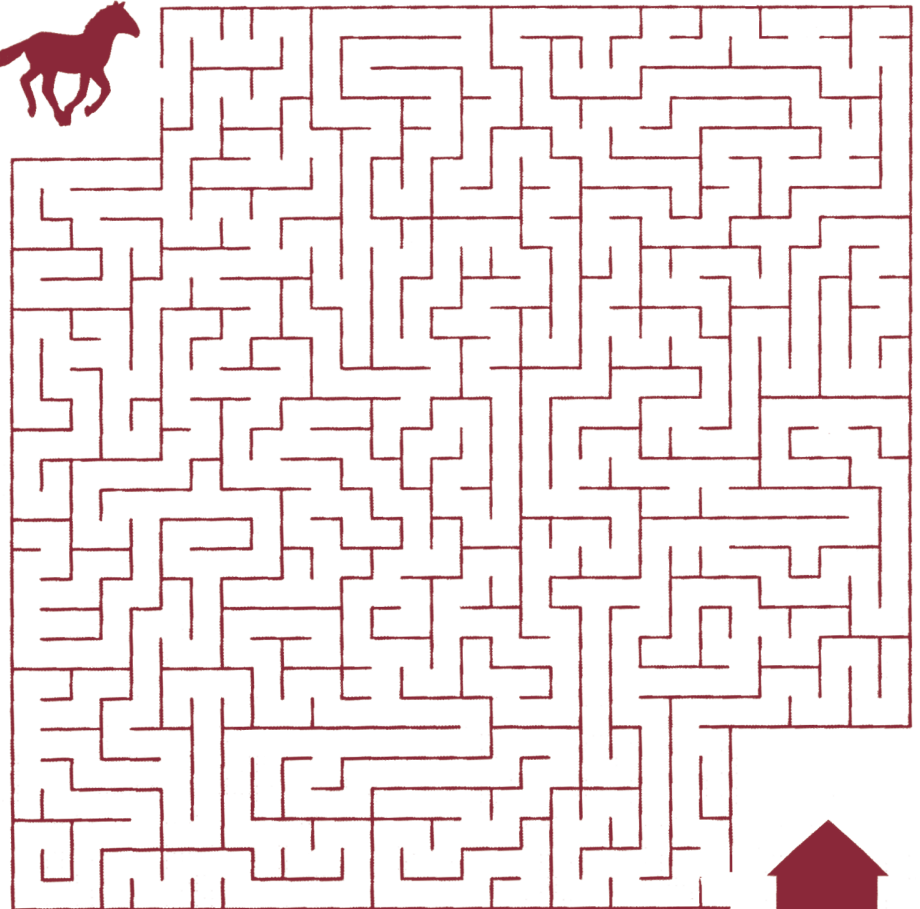
- empty baby food jar or other jar with a lid
- water
- glitter or sequins
- hot glue gun
- plastic farm figurine, such as a small ornament or miniature toy

DIRECTIONS

1. Attach your figurine to the inside of the jar lid using hot glue. You also can use silicone or aquarium glue.
2. Fill jar with water up to ½ inch from the top. You can use glycerin or mineral water instead of tap water to make the “snow” fall more slowly.
3. Sprinkle your glitter or sequin “snow” into the jar.
4. Line the inside of the lid with hot glue, and screw it securely onto the jar.
5. Let stand and dry overnight, lid-side up.
6. Turn jar over and watch the winter scene you’ve created!

Winter farm maze

The snow has begun to fall. Help get the horse into the barn.



Parents, grandparents and teachers! For more winter reading suggestions and activities, visit Agriculture in the Classroom online at AgInTheClass.org.

Solve it!

Unscramble the tiles to reveal a message. Answer below.

F R O O Y T I N U R S O N O U . F A R M O
'S G G S S E A M T R E E

Answer: Season's greetings from our farm to you.