BARNYARD BANTER

A COLLECTION OF AITC LITERACY CONNECTIONS
1001 Things to Spot on the Farm

**AUTHOR:** Gillian Doherty  

**SUMMARY:** Brightly illustrated picture book provides many things to find and count on every page. This book will entertain and educate young students.

**CONTENT AREA:** number recognition and counting

**DISCUSSION QUESTIONS**

1. Name some animals that live on the farm.
2. What are some jobs that people do on the farm?
3. What kinds of machines or tools are used on the farm?
4. Which place on the farm (or type of farm) was your favorite? Why?

**ACTIVITIES**

1. Give each student a piece of construction paper. Fold in half horizontally, open, and then fold in half vertically to create 4 squares. Have students write a number in each square. Pass out bean seeds to each student. Have them count out and then glue the correct number of beans into each square.
2. Copy any page and pass out to each student with a piece of string. Call out prompts, such as “circle 5 cows” and have students circle the correct items with their string.

**WORDS TO KNOW:**

- shear - to cut or clip hair
- foal - a young horse
- kid - a young goat
- combine - a machine used to cut and clean grain

**VIRGINIA CONNECTIONS**

Virginia farmers grow and raise many different things. However, Virginia’s climate is not conducive to everything and there are several crops in this book that Virginia does not grow. Those are oranges and lemons, many of which are found in the warmer locations of Florida and California. Additionally, Virginia farmers produce grains such as wheat, corn, and soybeans, but you will not find rice fields. In the US, the top rice producer is Arkansas. Lastly, while it can be hot in the summer, Virginia is not a tropical location, and so you will not find cocoa, coffee, pineapple, or bananas grown here.
**ALL IN JUST ONE COOKIE**

**AUTHOR:** Susan E. Goodman  

**SUMMARY:** Grandma is making cookies for some visitors that are coming, and Dog and Cat are interested in where all of the ingredients are grown or produced. Readers will be taken all over the world as they take a look into where the ingredients come from.

**CONTENT AREA:** animal and plant processes

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**DISCUSSION QUESTIONS**

1. Where did some of the ingredients that Grandma used come from?
2. What ingredients could be found in North America, where we live?
3. Can you think of some other foods that have Grandma’s ingredients in them?

**ACTIVITIES**

1. Have students create an alphabet book on the ingredients, where they come from, and where they can be found by drawing pictures and writing sentences.
2. Do a cooking project using some of the ingredients in the book and review with the students where those ingredients come from.

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**WORDS TO KNOW:**

- ingredient – an element that is combined in a mixture to create something else
- molasses – a thick syrup
- superstitious – believing in certain sayings or ideas
- evaporate – to disappear into the air as a gas

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**VIRGINIA CONNECTIONS**

Dairy, the key ingredient in butter, is Virginia’s third-largest agricultural commodity. In Virginia, there are more than 100,000 head of dairy cattle; however, most of the milk produced in Virginia comes from farms with fewer than 200 cows.

Other ingredients in Grandma’s cookies that are produced in Virginia include flour and eggs. The poultry industry encompasses the production of chickens, turkeys, and eggs. Poultry is Virginia’s number one commodity.
Apple Fractions

Author: Jerry Pallotta
Publisher: Scholastic, 2002, ISBN: 0439389011

Summary: The wonderful world of fractions is introduced in this story about apples. Readers will learn what apples and fractions are, including the difference between proper and improper fractions.

Content Area: fractions

Discussion Questions
1. What is a fraction? How can an apple be used to show fractions? How is an apple cut to show fractions?
2. In the book there were many types of apples named. Can you remember some of the ones named?
3. An apple was cut into 5 slices in this book. If the elves in our story eat two of those slices, what fraction of the apple slices is left?

Activities
1. Have various types of apples around the room for students in group to observe. Ask questions concerning fractions so the students can use the apples as manipulatives.
2. Cut apples in slices from the side instead of from the top. Ask the students if they are equal slices. Let the students use the slices in paint to create imaginative pictures.
3. Use other types of food to manipulate when learning fractions, such as candy.

Words to Know:
fraction – part of a whole thing or set
denominator – bottom of a fraction
numerator – top of a fraction
divide – to separate into parts
improper fraction – fraction having the numerator greater than the denominator
harvest – gathering of crops

Virginia Connections
Virginia growers produce an average of 8 to 10 million bushels of apples per year. Apple varieties grown in the state include Red Delicious, Fuji and Granny Smith. In 2008, Virginia totaled 230 million pounds in apple production, which was 15 million pounds higher than 2007. Shenandoah Valley is largest district in apple production with 166,119 pounds of apples produced in 2008.
### The Bee: Friend of the Flowers

**Author:** Paul Starosta  
**Publisher:** Charlesbridge Publishing, 2005, ISBN: 1570916292

**Summary:** The many parts of a bee's life are explored through various topics in this book, from pollination and the life cycle to the bee's nest and seasons of bee hives.

**Content Area:** pollination, bee life

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| 1. Explain how the pollination process works, keeping in mind what the book mentioned.  
2. Journal Entry: Write from the bee's perspective about why they may have a bad rap and how that is not true.  
3. Metamorphosis is something other organisms go through, as well. Can you think of any other organisms that go through a change in form? | 1. Have students act out the life and role of a honeybee. The class can be the colony and students can assign certain roles to each other to get the work done.  
2. Have students research information on other insects that go through metamorphosis and write reports on them to share with the class.  
3. Create a bulletin board about bees and have students research more information about bees on the internet. Students can share interesting facts that they find and post them on the bulletin board. |

**Words to Know:**

- **drone** - a male bee, stingless, and does not honey
- **larva** - the immature, wingless, feeding stage of a bee
- **metamorphosis** - a change that a bee undertakes from one stage to the next
- **regurgitate** - to spit up

**Virginia Connections**

Insects are needed to pollinate a variety of fruits, vegetables, and legumes. Common products include tomatoes, onions, blueberries, cherries, pears, sunflowers, pumpkins, broccoli, carrots, squash, cucumbers, lettuce, potatoes, oranges, lemons, limes, mustard seed, vanilla, sugar, almonds, watermelon, and apples. In fact, about one-third of the human diet is derived directly or indirectly from insect-pollinated plants. About 80% of these are pollinated by bees. Within Virginia, about 80 of Virginia’s most popular crops, valued at about $80 million, rely on pollinators.
Chicks and Chickens

Author: Gail Gibbons  

Summary: An introduction to the physical characteristics, behavior, and life cycle of chickens, as well as a discussion of how chickens are raised on farms.

Content Area: animal life

Discussion Questions

1. How do chickens clean themselves?
2. What is the first stage in the chicken’s life cycle?
3. Chickens on a farm provide food for the family. Can you think of some other animals on the farm that provide the family with food?

Activities

1. Students can review the life cycle of a chicken by making a flip book with illustrations and text that follow the steps in the process.
2. Create a chicken using students hand prints as the feathers. Students can write stories about their chickens and share them with the class.

Words to Know:

- hen – female chicken
- rooster – male chicken
- breed – group of animals that share many of the same features
- preening – chickens cleaning their feathers with their beaks
- flocks – groups of chickens or other birds
- clutch – any group of eggs in a nest
- incubation – warming the eggs

Virginia Connections

Poultry, including the raising of chickens, turkeys and eggs, is by far Virginia’s largest agricultural commodity. Virginia’s poultry companies employ more than 12,000 people. A significant amount of chicken and turkey raised in Virginia is exported to foreign countries.
Corn

Author: Gail Gibbons

Summary: An introduction to the types, uses, and planting and harvesting of corn, as well as, the history of how corn came to the colonies.

Content Area: plant life, past vs. present

Discussion Questions

1. How did corn work to bring the Indians and colonists together?
2. What did you learn about corn that you did not already know?
3. The machines in this book help farmers plant and harvest their corn. How do you think farmers got some of this work done before these machines were invented?

Activities

1. Bring in dried cobs of corn and have students pull the kernels off and make mosaics with them. Students can create scenes from the book to help them show what they learned.
2. Bring in different types of food that have corn in them so students can taste them. Create a graph to show the most and least favorite of the class.
3. Students can write a letter to Native Americans or colonists from the past and describe all of the advances society has made with planting, harvesting, and using corn.

Words to Know:

maize – native word for corn
cultivate – to grow plants or crops
harvest – the gathering of crops
kemel – corn seed
silo – tall, round buildings used to store food for animals
silage – a mixture of grains that is fed to animals

Virginia Connections

Corn for grain or silage is raised in nearly all of the Virginia counties. Most corn that you see from the road is raised to feed livestock and for use in processing certain foods. April and May are popular months for planting corn, while June to September is prime time for harvesting.
**Corn is Maize: The Gift of the Indians**

**Author:** Aliki  
**Publisher:** Harper Collins Publishers, 1976, ISBN: 100064450260

**Summary:** From its life cycle to uses, Aliki explores corn from a historical perspective. Topics include germination and pollination; its importance to Native Americans and colonists; as well as past and present-day uses.

**Content Area:** history; plant life cycle

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**Discussion Questions**

1. What does the kernel of corn need in order to grow?
2. Where did scientists find the earliest corn?
3. What did the Native Americans do with the corn?
4. How do we know that corn was important to the Native Americans?
5. Why do you think the Pilgrims called maize "Indian corn?"
6. What did the Pilgrims use corn for?
7. What are some examples of foods you eat with corn in them?

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**Activities**

1. Fold a piece of paper into fourths and trace along the creases to create 4 squares. Number the squares. In each square draw a picture of what corn looks like as it is growing, beginning with seed and ending with the mature plant.
2. Create an advertisement for corn touting its different uses. You may choose the Native American, Pilgrim, or modern-day perspective.
3. Bring in an ear of corn. Allow corn to dry out and then have students each take 2-3 kernels. Plant in small Ziploc baggies with a moistened cotton ball. Have students observe and record the plant’s growth.

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**Words to Know:**

- maize – word the Native Americans used for corn
- kernel – corn seed
- husks – bundle of leaves around the corn
- pollen – yellow, powdery-like material that is produced by plants

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**Virginia Connections**

Today, corn for grain or silage (a mixture of grains that is fed to animals) is raised in nearly every Virginia county. Most corn you see while traveling through Virginia is raised to feed livestock and for use in processing certain foods.
Down on the Farm: Pigs

Author: Hannah Ray

Summary: Brightly illustrated book explores the world of pigs. This easy-to-read book is full of interesting facts and great photographs. Great way to introduce young readers to nonfiction books – included are a table of contents, glossary, and index. There are even activity suggestions at the end.

Content Area: farm animals

Discussion Questions
1. What type of things do pigs eat?
2. Why do pigs sometimes roll around in the mud?
3. About how big is a typical pig?
4. What types of things are pigs used for?

Activities
1. Make piggy banks using old tissue boxes. Paint or cover the tissue box with pink paper/felt being sure to leave the hole free. Take a small paper plate and paint it pink. Draw on eyes and nose and cut ears out of construction paper. Glue to the front of the tissue box. Paint four small paper cups pink and attach to bottom of box. Use pink pipe cleaners for a tail.
2. Have students make “geo-pigs” using shapes (circles, triangles, rectangles, ovals, etc.) cut from pink construction paper. Attach pipe cleaners as tails and display.

Words to Know: see also “Glossary” included in back of book
piglet – baby pig
sow – adult, female pig

Virginia Connections
In Virginia hogs are raised primarily in the southern parts of the Piedmont region as well as the Coastal Plains region. Hog production ranks #13 on Virginia’s top agricultural commodities, which places them in between wheat and hay. In 2007 hog production generated more than $526 million in sales and employed 8,760 people.
Eli Whitney and the Cotton Gin

Author: Jessica Gunderson  

Summary: In a graphic novel, much like a comic book, readers are told the story of how Eli Whitney invented the cotton gin and the changes that occurred in the south because of his invention.

Content Area: changes from past to present, plant life and processes

Discussion Questions

1. Where was most of the cotton in America grown?
2. For what problem did the cotton gin provide a solution?
3. What was the impact of the cotton gin?
4. In what ways do we use cotton today?

Activities

1. Have students create a timeline on the invention and production of the cotton gin. Students can draw pictures or write sentences to describe the steps.
2. Have students tie-dye shirts using plant based dyes like people did in Eli Whitney’s day.
3. Research other inventions that have impacted American history. Create a classroom “museum” of inventions.
4. Create a resume for Eli Whitney.

Words to Know:

Boll – a round pod on some plants that contains seeds  
Plantation – a large farm where crops are harvested  
Harvest – the gathering of crops

Virginia Connections

Cotton is believed to have been planted in Virginia as early as 1607. By 1616 it was being grown along the James River by the colonists. The invention of the cotton gin in 1793 led to a boom in cotton across the South. Today in Virginia, cotton is grown in the southern part of the Coastal Plains region. Virginia’s largest cotton producing county is Southampton.
Fantastic Farm Machines

AUTHOR: Cris Petersonn

SUMMARY: Farming involves many more machines than simply a tractor, and this book introduces readers to several. A combination of close-up and aerial photographs helps to show the work of these modern machines and demonstrate the work that takes place on a farm.

CONTENT AREA: capital resources

DISCUSSION QUESTIONS

1. What are examples of some jobs done on the farm by machines?
2. The machines in this book help farmers get their work done. How do you think farmers got some of this work done before these machines were invented?
3. What are some machines that make tasks in your life easier?

ACTIVITIES

1. Have students imagine that they are writing a letter to the grandfather mentioned in this book. In their letters have students explain the technological advances that have been made on the farm.
2. Have students write a mystery “What am I?” paragraph about one of the machines in the book. Trade with a partner and have them try to guess the machine.

WORDS TO KNOW:

irrigation – the application of water to land to aid in the growing of crops
disk (verb) – to work or cultivate the soil to prepare it for planting
manure – animal waste

VIRGINIA CONNECTIONS

More than 98% of Virginia and US farms are owned by individuals, family partnerships or family corporations. In Virginia, over 1100 family farms have been designated as “Century Farms.” Century farms honor those farms that have been in operation for at least 100 years and have been owned by the same family.
Farm Patterns

Author: Nathan Olson

Summary: The reader will go through the many patterns that can be found on the farm, such as tractor treads, rows of crops, and animals lined up ready to eat.

Content Area: patterns

Discussion Questions

1. What are some of the patterns mentioned in the book that you can find on a farm?
2. Can you think of any other patterns that you might see on a farm?
3. The pictures in the books show patterns that animals, people, and crops make. Do these things always make patterns, no matter what they do?

Activities

1. Have students create their own patterns from various materials. Encourage them to create patterns from the book or others on the farm that they can think of.
2. Create your own farm patterns and have students complete the patterns with the correct objects.

Words to Know:

combine - machine that harvests crops
pattern - repeated shape or color
 crops - cultivated produce of the ground
fowl - edible bird, such as a turkey or chicken

Virginia Connections

Agriculture is the beef in your burger, the bacon and eggs for your breakfast and the wool in your sweater. American-grown foods travel a shorter distance from farm to table than do imported foods. The vast majority, more than 98% of Virginia and U.S. farms are owned by individuals, family partnerships, or family corporations.
Farmer George Plants a Nation

AUTHOR: Peggy Thomas

SUMMARY: Learn about the life of George Washington as told from a different perspective – Washington as a farmer. Book includes map of Mount Vernon, primary source excerpts, and a timeline.

CONTENT AREA: early American history

DISCUSSION QUESTIONS

1. How did George’s new plow save time and energy?
2. What did George do to prevent his soil from becoming too weak to nurture crops?
3. What types of experiments did George conduct at Mount Vernon?
4. How did the circular barn help make harvesting wheat easier?
5. In your opinion, what was George Washington’s greatest contribution to America?

ACTIVITIES

1. Create a classroom composting project using old gallon milk jugs, with the tops cut off. Add layers of kitchen scraps, egg shells, shredded newspaper, leaves, and/or pine needles. Sprinkle with water and keep in a warm spot. Place a plastic bag over the top of the jug to keep the moisture in.
2. Create a timeline including major events from the book.
3. Have students choose at least 5 of the excerpts from Washington’s diary to rewrite in their own words on small squares of construction paper. Staple together and add a cover page to create a journal.

Words to Know:

plantation – a large estate or farm on which crops are raised
harrow – a farming tool with sharp teeth used to break up and level soil
loom – a tool used to turn yarn into cloth by weaving the strands together
sentinel – a person or thing that watches or stands as if watching
Virginia Connections

Built in 1757, Mount Vernon was the plantation home of George Washington. It is located in Virginia along the Potomac River, near the city of Alexandria. The estate is now owned by the Mount Vernon Ladies' Association and is designated as a National Historic Landmark and is on the National Register of Historic Places. It is open daily to the public for tours of the mansion and its expansive grounds.
Farms ABC

**AUTHOR:** B.A. Hoena  

**SUMMARY:** In an alphabet book, readers learn about the variety of animals and products that can be found on the farm.

**CONTENT AREA:** letter recognition, animal and plant life

**Discussion Questions**

1. List as many things as you can that can be seen on a farm.
2. Categorize your answers from #1 into natural, human, and capital resources.
3. What are some of the many ways that the animals and plants on the farm can help us in our every day lives?

**Activities**

1. Students can create their own farm story using the animals and products in the book. Have students act out the story or make puppets to act out the story.
2. Students can make an alphabet chain out of paper plates. Give each student a paper plate and assign them a letter. On their plates, have students write the letter, a sentence, and draw a picture related to the book. Display this chain around the room.

**Words to Know:**

- irrigation – artificial water system to land to assist in the growing of crops
- silo – tall, round buildings used to store food for farm animals

**Virginia Connections**

Agriculture is the beef in your burger, the bacon and eggs for your breakfast and the wool in your sweater. Agriculture touches your life every day, whether it’s the beams for your roof or the cotton for your jeans. American-grown foods travel a shorter distance from farm to table than do imported foods. The vast majority, more than 98%, of Virginia and U.S. farms are owned by individuals, family partnerships, or family corporations.
A FIELD FULL OF HORSES

AUTHOR: Peter Hansard

SUMMARY: Softly illustrated book takes readers on a ride through a field full of horses using descriptive writing and creative imagery. Readers will learn basic information as well as different types of horses and their care.

CONTENT AREA: vocabulary

DISCUSSION QUESTIONS

1. What sorts of things does the author like about horses?
2. List at least 3 examples of descriptive words or phrases in the book.
3. Describe your favorite animal. What are your favorite things about it? What does it look like? What does it sound like?

ACTIVITIES

1. Horses are measured in hands. With a partner, have students take turns lying on a piece of butcher paper and tracing their bodies. Then draw and trace handprints from foot to head to measure themselves in hands.
2. Have students use descriptive vocabulary to write a haiku about their favorite animal.

WORDS TO KNOW:

stallion – adult, male horse
mare – adult, female horse
foal – young horse
gallop – term used for when a horse runs at full speed

VIRGINIA CONNECTIONS

Virginia is the nation’s 5th largest equine (horse) state. The equine industry began in Virginia in 1610 with the arrival of the first horses to the Virginia colonies. Horses were used for travel and to pull plows as well as tread wheat. Today, horses are used for racing, pleasure riding, hunting, competitions, and breeding.
Forty Acres and Maybe a Mule

Author: Harriette Gillem Robinet
Publisher: Aladdin Paperbacks, 2000, ISBN: 9780689833175

Summary: Two brothers living in the south on their family farm struggle to hold onto what is rightfully theirs, but they run into trouble from night riders who want to take their farm away because they are ex-slaves living in the Reconstruction era.

Content Area: Civil War and Reconstruction era, applying information

Discussion Questions
1. Describe the historical setting of the book.
2. Who are the main characters? List 5 adjectives to describe each of them.
3. What significance did the Civil War and Reconstruction period play in the development of the United States?

Activities
1. Students can write a pretend letter to Pascal or Gideon, asking them questions that they may have after reading the book. Letters can also be written to other characters.
2. Create a timeline with students, pointing out the events that happened in the book, along with events that happened in U.S. history around the time of the book.

Virginia Connections
Virginia faced many challenges during the Reconstruction Era. Freed slaves needed housing, food, and jobs; however, Virginia’s economy was in ruins with railroads, bridges, plantations, and crops having many destroyed.

Sharecropping became common in many states, including Virginia after the end of the Civil War. Under this system, freed men and poor white farmers rented land and paid the owner with a portion of the crop.
**From Plant to Blue Jeans**

**Author:** Arthur John L’Hommedieu  
**Publisher:** Children’s Press, 1997, ISBN: 9780516203669

**Summary:** Part of the Changes series, this book takes readers on the journey from cotton farm to consumer. Each step in the process is explained with large photographs and simple text.

**Content Area:** plant life cycle; natural resources; economics; sequencing

**Discussion Questions**

1. Give examples of the natural, human, and capital resources used to create jeans.
2. Brainstorm other items that are made with cotton.
3. American inventor Eli Whitney invented the cotton gin in 1793. Why do you think this was an important achievement?
4. Do you like to wear jeans? Why or why not?

**Activities**

1. Type the steps outlined in the book, cut into strips and pass out to students. Have students sequence the strips in the correct order.
2. Draw a picture to illustrate each stage in the life cycle of a cotton plant. Glue cotton balls on the mature plant.
3. Create a worksheet with clipart images of various items such as a t-shirt, socks, pencil, skateboard, or pants. Have students glue cotton balls on those items that are made with cotton.

**Words to Know:**

- **boll** – seed pod for cotton; when ripened they open and reveal the cotton
- **cotton gin** – machine that separates the cotton from the seeds
- **bale** – large bundle prepared for packaging, storage, or sale
- **textiles** – fabrics

**Virginia Connections**

Cotton is believed to have been planted in Virginia in 1607. By 1616 it was being grown along the James River by the colonists. The invention of the cotton gin in 1793 led to a boom in cotton across the South. Today in Virginia, cotton is grown in the southern part of the Coastal Plains region.
From Tomato to Ketchup

**Author:** Roberta Basel  
**Publisher:** Capstone Press, 2006, ISBN: 0736842861

**Summary:** Through this colorful book, students will learn about the process in which tomatoes become ketchup, from the farm to the factory.

**Content Area:** plant life and processes; natural, human, and capital resources

**Discussion Questions**

1. What are your favorite foods to put ketchup on?
2. What are some other foods made with tomatoes?
3. What are the different types of people/jobs involved in creating ketchup?
4. What types of machines are needed to make ketchup?

**Activities**

1. Have a tasting party with different tomato products. Take a class poll on the favorites. Have students graph the results.
2. Write down the steps involved in the process of making ketchup. Cut them into slips and give each student a different step. Have them line themselves up in the correct order. For a challenge, require them to do it without talking.

**Words to Know:**

grading station – tomatoes are checked to see if they are good or bad  
ingredients – type of food that is combined in a mixture to create something else

**Virginia Connections**

Virginia is the nation’s third-largest producer of fresh tomatoes. Through the months of April, May and June tomatoes are planted, while the months from July to October are prime time to harvest those tomatoes in Virginia. In 2008, tomatoes were the second largest vegetable planted and harvested in Virginia, right behind snap beans.
FROM WHEAT TO PASTA

AUTHOR: Robert Egan

SUMMARY: In a short and simple book about wheat, readers are taken through the extensive process on how wheat becomes pasta. Different shapes and colors of pasta are also discussed.

CONTENT AREA: plant life and processes

DISCUSSION QUESTIONS

1. Where does the process of wheat begin?
2. In order to make pasta, the wheat has to go through many machines. What do some of the machines mentioned in the book do?
3. The pasta we saw in the book comes in many different colors and shapes. It showed us how the different shapes are made. How do you think they make the different colors?
4. What are some other ways we enjoy pasta, other than spaghetti?

ACTIVITIES

1. Using various different shapes and colors of pasta, have the students create pictures that depict the steps in the wheat to pasta process.
2. Bring in different restaurant menus, have students identify the foods on the menu that are made with wheat.
3. Have students act out various steps in the process of wheat to pasta and guess which ones they are acting out. Put the steps in order.

WORDS TO KNOW:

wheat – plant that is ground into flour to make bread, pasta, etc.
harvest – to gather crops
combine – machine used to cut grain
stalk – stem of a plant
kernel – a whole seed grain
flour – powdery form of wheat
extruder – machine that cuts pasta into tubes
dough – flour combined with water to make bread, pasta

VIRGINIA CONNECTIONS

Winter wheat, which is the most common variety of wheat produced in Virginia, is largely produced on the eastern side of the state. Virginia grown wheat is used for animal feed, export grain, and ground into flour.
Heartland: Coming Home

Author: Lauren Brooke

Summary: Heartland is a horse farm where horses go to gain strength and trust that has been lost. Amy calls Heartland home and can understand the needs of the horses, but when an accident happens Amy must learn to rely on what her mother taught her.

Content Area: understanding and applying information, horse life

Discussion Questions

1. How is Amy able to communicate with the horses? What skills has her mother taught her to use?
2. Journal Entry: Write some questions you would ask Amy if you were interviewing her.
3. What is the accident that happens, which causes Amy to rely more on what her mother has taught her?
4. As you pictured the scenes in your mind, which was your most or least favorite?

Activities

1. Assign groups of students to research specific information about horses, such as how to take care of them, their life cycle, and what they are normally raised for.
2. Have students use the questions they wrote earlier to interview Amy and act out the interview with each other. Students can also write questions for interviewing other characters, even the horses.

Words to Know:

reticence – disposed to be silent or not to speak freely

Virginia Connections

Virginia is the nation’s fifth-largest equine state. The state’s equine industry began in 1610 with the arrival of the first horses to the Virginia colonies. Horses raised in Virginia today are used for racing, pleasure riding, hunting, competitions, and breeding.

George Washington used horses to tread wheat loose from plant stalks for milling at Mount Vernon.
How Groundhog’s Garden Grew

Author: Lynne Cherry

Summary: Join Groundhog and Squirrel in this beautifully illustrated book as they plant a garden with a multitude of delicious vegetables and watch them grow. Students will learn about edible plant parts as well as plant life cycles and germination.

Content Area: plant parts, germination, plant life cycle

Discussion Questions

1. How was the planting of the potatoes different from the other vegetables?
2. What are some examples of “root crops?”
3. Give at least 2 examples of pollinators.
4. What happens after the vegetable is pollinated?
5. Which of the vegetables in Groundhog’s garden have you tried before? Which would you like to try?

Activities

1. Groundhog shares his abundant harvest with his friends. Have students create an invitation to this dinner. Include pictures of the foods they will be enjoying.
2. Sprout your own spuds like Groundhog did! Take an old potato with sprouts and stick toothpicks into potato about 2/3rds away from sprouts. Fill a plastic cup with water. Place potato in cup with sprouts in water. Toothpicks should rest on rim of cup.
3. Bring in samples of the vegetables from Groundhog’s garden and have a tasting party.

Words to Know:

scrumptious – extremely pleasing
burrow – a hole or tunnel in the ground made by an animal
amble – to go at a slow, easy pace
perennial – a plant that comes back each year
shoot – new growth on a plant that grows upward
jubilant – showing great joy or triumph
Virginia Connections

You can find many of the vegetables in the book growing on farms and in gardens across Virginia. The top vegetables produced in Virginia include, tomatoes, potatoes, snap beans, corn, cabbage, and cucumbers. In particular, you will find many vegetable farms on Virginia’s Eastern Shore, which is known for its “truck farms,” because the vegetables are trucked to market.
**Janey Junkfood’s Great Adventure!**

**Author:** Barbara Storper, MS, RD  

**Summary:** Highly graphic book using a scrapbook format follows Tobe Fit as she investigates the effect of her friend Janey’s poor eating habits. This book illustrates the value of healthy fruits and vegetables and the negative effect of sugary snacks and treats.

**Content Area:** health and nutrition

**Discussion Questions**

1. What prompts Tobe to begin her investigation?
2. Why does Tobe nickname Janey “Janey Junkfood?”
3. According to the famous nutritionist, what’s wrong with junk food?
4. What are some negative effects on junk food on your body?
5. What are some examples of healthy snacks that you can eat instead of junkfood?

**Activities**

1. Have groups of students create and perform commercials that advertise healthy eating.
2. Use grocery store circulars to have students cut out examples of healthy foods. Sort using the food groups on the food pyramid and then have students glue the pictures to a paper plate to create a healthy eating collage.
3. Make one of the healthy snacks listed in the back of the book, such as yogurt parfait or veggie confetti.

**Words to Know:**

**calorie** – a unit of energy. When you take in more energy than your body can use, the excess is stored as fat.

**Virginia Connections**

Many of the healthy fruits listed in this book are grown right here in Virginia. Examples of Virginia-grown fruit include apples, strawberries, peaches, nectarines, and watermelons. Among these, apples are the most produced fruit in the state. In fact, farmers harvest an average of 8-10 million bushels a year.
Out and About at the Dairy Farm

AUTHOR: Andy Murphy  

SUMMARY: Students take a trip to the dairy farm and learn what cows eat, where they sleep, and the changes in their life cycle.

CONTENT AREA: animal needs and processes

DISCUSSION QUESTIONS

1. What were a dairy cow’s spots compared to? Why were they compared to that?
2. What do dairy cows eat?
3. How do farmers get milk from their dairy cows?
4. What is a calf? What did you learn about calves?
5. What are some other animals that you might see on a farm?

ACTIVITIES

1. Make ice cream with your students by using baggies, milk, sugar, vanilla, and ice. Review where the milk comes from and practice measuring. Challenge — have students figure out the proper amount of ingredients needed to double or triple the recipe.
2. Have students research the nutritional benefits of dairy and incorporate their findings into advertisements for dairy.

Words to Know:

silage – mixture of grains that is fed to animals  
cud – the food that cows chew after they have swallowed it and coughed it up  
Holstein – a black and white spotted dairy cow

Virginia Connections

Dairy is the state’s third-largest agricultural commodity. There are more than 100,000 head of dairy cattle in Virginia. The most widely recognized dairy cow is the Holstein, which has black and white spots. The spots are similar to people’s fingerprints in that no two cows have the same pattern of spots. Dairy farmers milk their cows at least twice a day. One cow produces 90 glasses of milk a day, and 200,000 in her lifetime. In fact, a cow’s udder can hold 25-50 pounds of milk!
Out and About at the Greenhouse

AUTHOR: Bitsy Kemper

SUMMARY: Students take a field trip to a greenhouse where they learn about how greenhouses work. The reader will explore what plants grow in a greenhouse and how to take care of those plants.

CONTENT AREA: plant needs and cycles

Discussion Questions

1. What does a horticulturist do?
2. Vince explains how a greenhouse works in the book. How does a greenhouse grow plants all year long?
3. There are a lot of different plants that can be grown in a greenhouse. Do you remember what some of the plants were that Vince talked about?
4. How do greenhouses help us in our everyday lives and how we live?

Activities

1. Create miniature greenhouses using plastic baggies. Place 1-2 seeds on a moistened cotton ball and insert into baggie. Zip shut. Have students monitor and record their seeds’ growth.
2. Have each student choose a plant. Have the draw a picture of and describe the plant and its care. Combine students’ work to create a classroom plant catalogue.
3. Bring in various plants for students to examine and make observations about. They can sort them based on certain characteristics.

Words to Know:

ornamentals – pretty plants and flowers
horticulturist – someone who knows a lot of plants and how to grow them
pruning – to cut undesired stems or flowers
fertilizer – minerals and vitamins for plants

Virginia Connections

Bedding and garden plants make up the largest segment of the state’s horticulture industry. Horticulture, now considered an agricultural enterprise, is Virginia’s fourth-largest commodity in terms of cash receipts.
Pumpkins

Author: Jacqueline Farmer

Summary: Readers learn everything there is to know about pumpkins, whether it’s the history of pumpkins, how to carve one, how they grow, or how to make pumpkin pie.

Content Area: plant life, past vs. present, changing form

Discussion Questions
1. What is some history you did not know about pumpkins and learned from listening to this book?
2. Why are bees important to pumpkins?
3. What is your favorite food that is made of pumpkins?
4. Imagine putting your hand down in a pumpkin. Describe what you feel, smell, and see.

Activities
1. Have students make up their own legend of the jack-o-lantern with illustrations and text to share with the class.
2. Bring a pumpkin into the classroom for the students to explore and make observations about. You can also carve the pumpkin and have the students write about the pumpkin like it was theirs (name, what he/she likes, how he/she acts).
3. Measure a pumpkin with string by letting the students estimate how wide it is and cut string depending on their estimation. Students come up and see long wide the pumpkin is.

Words to Know:

pollination – transfer of pollen from the anther to the stigma
fertilizer – vitamins and minerals for plants

Virginia Connections

Pumpkins are an important specialty crop for Virginia with over 2,000 acres grown annually. The scale of production ranges from an acre or two to several hundred acres per grower. Pumpkins are marketed as an ornamental crop.
**Tops and Bottoms**

**Author:** Janet Stevens  
**Publisher:** Harcourt, 1995, ISBN: 9780152928513.

**Summary:** Long a favorite of adults and children alike, this book weaves together folktales and fables to tell the story of the clever hare and lazy bear. The two animals strike a pact whereby hare will do the gardening work using bear’s land and bear will get to choose the plant part he would like to keep, tops or bottoms.

**Content Area:** plant parts

**Discussion Questions**

1. How was hare able to trick bear?  
2. Which of the vegetables in the book have you eaten?  
3. What are the “bottoms” of the plants? What are some plants that have good “bottoms” to eat?  
4. Where did the corn grow on the plant?  
5. How would you describe bear? How would you describe hare?  
6. Do you think bear learned his lesson?  
7. Do you think hare was fair to bear? Why or why not?

**Activities**

1. List all of the vegetables mentioned in the book. Have students sort them by plant part we eat. You may also bring samples in for students to taste.  
2. Cut several pieces of paper in half length-wise. Give each student 3 strips. Fold them in half cross-wise (like the book opens). Have students draw and label 3 examples of their favorite vegetables. Above the crease should be what it looks like above ground and below the crease is what it looks like in the ground. Staple to create their own vegetable book.

**Words to Know:**

hare – similar to a rabbit, they are larger and have longer ears  
tortoise – turtle  
harvest – to collect or gather the ripe plants for food or products  
profit – something earned or gained, usually the result of working, investment, or property

**Virginia Connections**

You can find many of the vegetables in the book growing on farms and in gardens across Virginia. The top vegetables produced in Virginia include, tomatoes, potatoes, snap beans, corn, cabbage, and cucumbers. In particular, you will find many vegetable farms on Virginia’s Eastern Shore, which is known for its “truck farms,” because the vegetables are trucked to market.
The Ugly Vegetables

Author: Grace Lin  

Summary: This book takes readers along on the process of preparing, planting, and harvesting a backyard 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 their neighbors’. Find out what she discovers in the end!

Content Area: communities; cultural diversity and understanding

Discussion Questions

1. What sorts of things do the mother and daughter do to prepare their garden?
2. At the beginning of the story, why does the daughter prefer the neighbors’ gardens?
3. Why did the neighbors come to their house at the end of the story?
4. Do you agree with the mother that their garden was better than flowers? Why or why not?

Activities

1. Cut out large vegetables from construction paper. Give each student 5 paper vegetables. Have them draw or describe a scene from the book on each vegetable. Then sequence the events in the correct order and tape to a piece of yarn to create a story chain.
2. Give students a piece of paper with a large soup pot drawn on it. Have students write on or draw pictures of their favorite vegetables inside the pot.
3. Use a crock-pot to make vegetable soup in the classroom.

Words to Know:

neighbors – people who live near you  
sprinkle – to lightly apply  
blooming – to produce blossoms or flowers  
wheeled – to roll something

Virginia Connections

Horticulture is the fastest growing segment of Virginia agriculture. Bedding and garden plants making up the largest part of the state’s horticulture industry.
A VISIT TO THE FARM/
Una Vista a La Granja

AUTHOR: B.A. Hoena

SUMMARY: The reader is taken through life on a farm as the book explores animals, jobs, plants, and machines found on the farm, in both English and Spanish.

CONTENT AREA: plant and animal life, languages

DISCUSSION QUESTIONS

1. What were some of the things mentioned that you can find on a farm?
2. The machines in this book help farmers get their work done. What types of machines were mentioned? How do you think farmers got some of this work done before these machines were invented?
3. Why are farms important?

ACTIVITIES

1. Have students create their own crosswords using the terms in the book. Challenge - use Spanish for the words in the word bank.
2. Create pictures of the animals on the farm and then have students sort them by their habitat. Make a picture of a farm and have students place the animals in their correct habitat.
3. Use the text to make flashcards for the English words and their Spanish translations.

WORDS TO KNOW:

- equipment - the machines, items, or skills needed to run the farm
- pasture - land that animals use to graze
- machinery - machines or big vehicles used to help around the farm
- combine - a machine that picks or harvests crops when they are ready
- tractor - a vehicle that pulls machines and is used to help around the farm
- graze - to eat grass that is growing in a field

VIRGINIA CONNECTIONS

Agriculture is the beef in your burger, the bacon and eggs for your breakfast and the wool in your sweater. American-grown foods travel a shorter distance from farm to table than do imported foods. The vast majority, more than 98% of Virginia and U.S. farms are owned by individuals, family partnerships, or family corporations.
A Weed is a Flower

Author: Aliki
Publisher: Aladdin Paperbacks, 1988, ISBN: 0671664905

Summary: The life of George Washington Carver, his dreams, and contributions are told in this story.

Content Area: George Washington Carver

Discussion Questions
1. Why did George Washington Carver choose to study agriculture?
2. Why did he tell farmers to plant peanuts and sweet potatoes instead of cotton?
3. What are some different uses he found for the peanut?
4. George Washington Carver lived in the past, when things were different from the way they are now. What things in the book can you point out that is different from the way things are done now?
5. What can you tell about George Washington Carver from reading this book? What kind of person was he?

Activities
1. Create an illustrated timeline depicting important events in George Washington Carver’s life.
2. Make an advertisement for peanuts with a picture of George Washington Carver and the many ways a peanut can be used.
3. Research the nutritional value of peanuts. Make a poster promoting the health benefits of peanuts.

Words to Know:
agriculture – the science, art, or occupation concerned with cultivating land, raising crops, and feeding, breeding, and raising livestock

Virginia Connections
Peanuts are grown in the southeastern corner of Virginia. The Virginia peanut is large and oblong, and is commonly sold in-shell. Peanuts are rich in antioxidants and contain high levels of protein and good monounsaturated fat.
The Yummy Alphabet Book

AUTHOR: Jerry Pallotta

SUMMARY: Not your ordinary alphabet book! Instead, this book is intended for older readers who will enjoy learning the origin of many of their favorite tastes and flavors. Each letter is dedicated to a wide-ranging assortment of herbs, spices, or other natural flavors. Readers will learn their origin, history, and uses. Artist’s notes at the end of the book provide further details and context.

CONTENT AREA: vocabulary; plant parts; geography

DISCUSSION QUESTIONS

1. How are spices and herbs similar and different?
2. Some spices and herbs have uses other than for food. What are some examples?
3. Why are spices, like cinnamon, important to history?
4. Which of the herbs, spices, or flavors in the book is your favorite? What foods or drinks do you like it in?

ACTIVITIES

1. Have students pick their favorite herb, spice, or natural flavor from the book and create an advertisement for it.
2. Give each student a map of the world. Have students create a key and then identify where cinnamon, kola, quinine, xocoatl, and zatar come from.
3. Bring in some of the items mentioned in the book and have a tasting party.

WORDS TO KNOW:

edible – able to be eaten
aromatic – fragrant or sweet-smelling

VIRGINIA CONNECTIONS

You can find many locally grown herbs in Virginia. These may be fresh or dried and are available at many farmer’s markets and grocery stores. Find a market near you: http://www.vdacs.virginia.gov/vagrown/index.shtml#.shtml

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