

Accurate Agriculture, Powerful Stories, Diverse Voices

Janice Harrington
Kevin Daugherty





What is Poultry?

Poultry is the term used to describe birds that are domestic, not wild, that are raised for their products including meat, eggs, and feathers. Poultry are raised on farms and in backyards across the state providing meat and eggs. The most common types of poultry in Illinois are chickens and turkeys.

CHICKEN & TURKEY

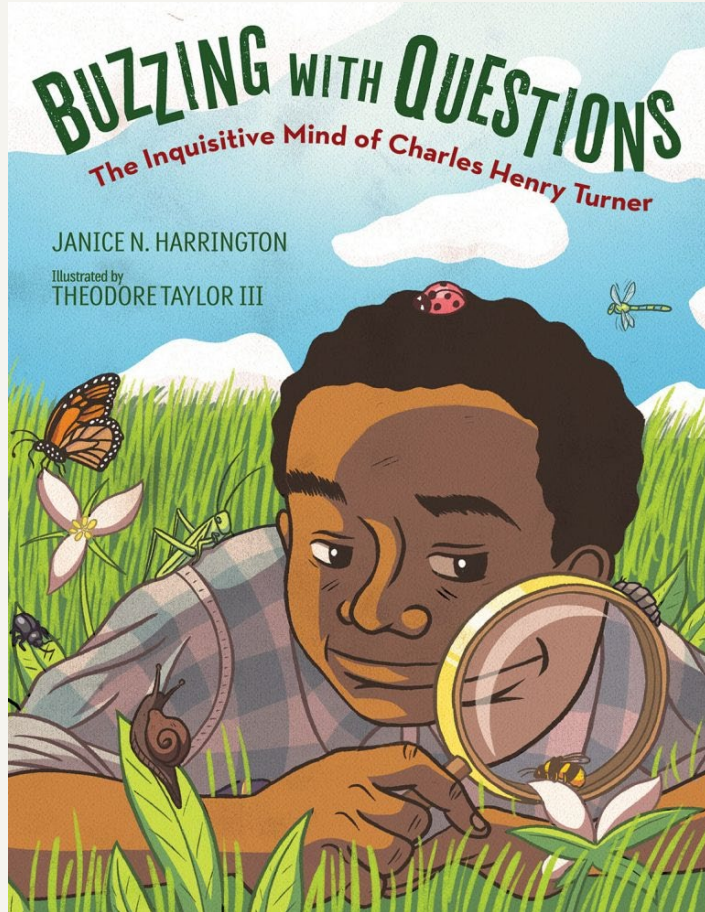
While chickens and turkeys are very similar, they also differ in specific ways. A turkey is larger with a longer neck and bigger body. A chicken has a shorter neck and more compact body. Both are covered with feathers, except for their hard, pointy beak and scaly legs. There are many different breeds of each, and the feathers and features can vary in color.

TURKEY

While turkey was once only thought of as the main dish for Thanksgiving, that has changed and each American now eats over 16 pounds of turkey per year! It is fitting that the turkey is a product of the New World. The turkey is a native of Central America, and was first domesticated in Mexico more than 2000 years ago! As the public has demanded more turkey, production has increased, and it has nearly doubled in the last 50 years. Minnesota, North Carolina, and Arkansas lead the nation in the number of turkeys raised annually. Illinois



CHICKEN FACT:

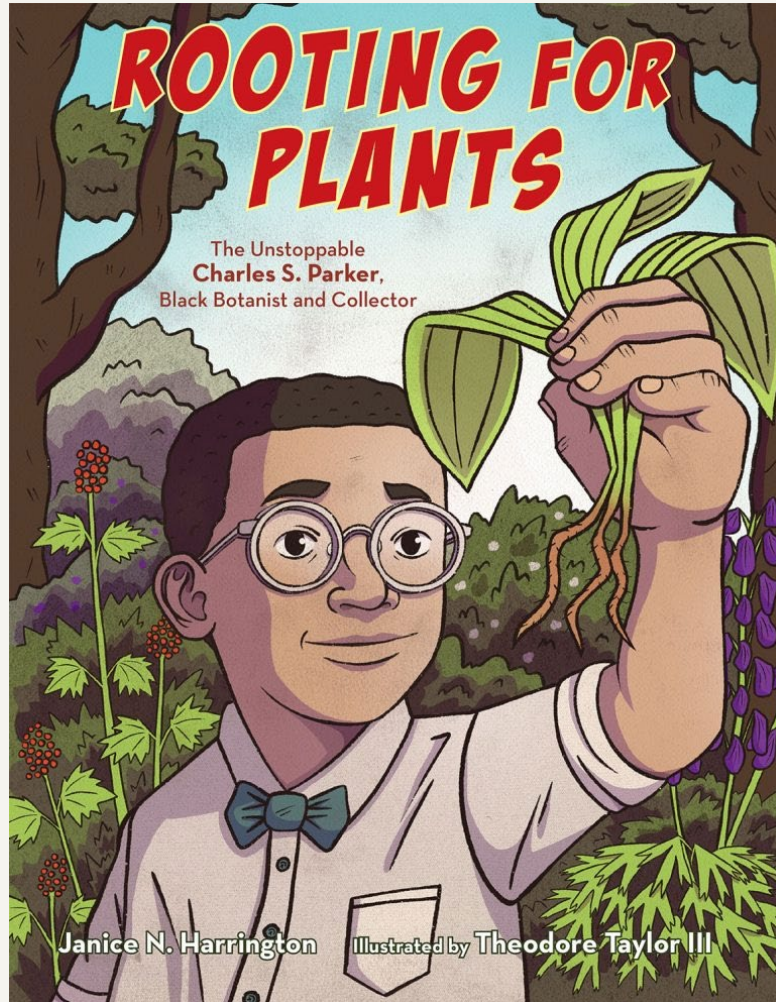


Facts for
**LITTLE
READERS**

Pollinators



- Food we eat depends on bees, butterflies, and other insects called pollinators.
- Plants need pollen to grow.
- Pollinators help plants



Mushrooms are the fruitbodies of different kinds of fungi. They are not considered plants or animals, although they share similar traits to both. Many mushrooms that you might see growing in your yard or on a fallen tree can be very harmful if they are eaten.

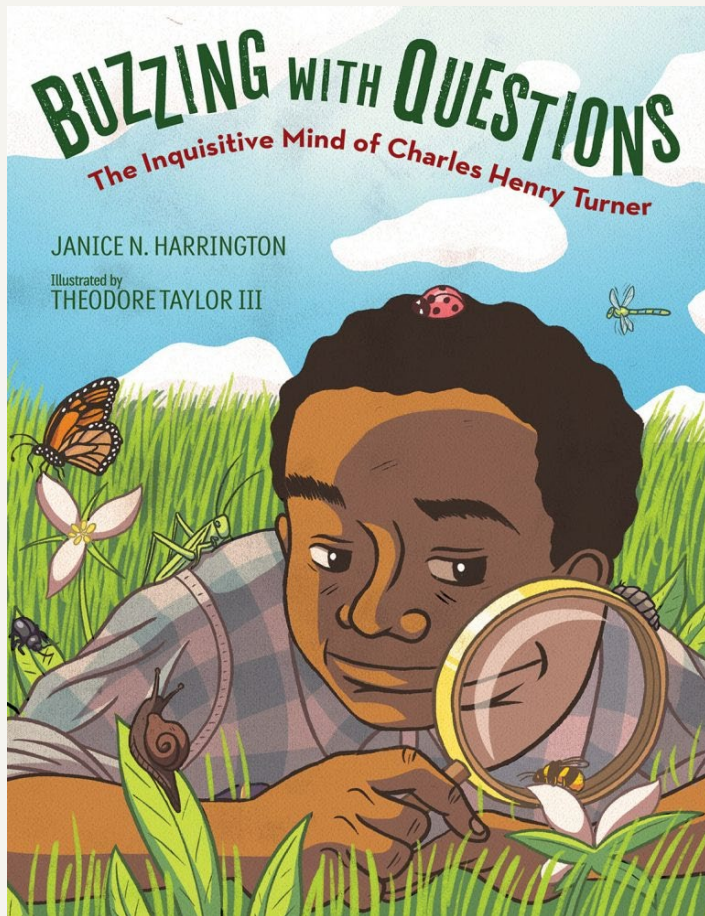
Edible mushrooms are mushrooms that are not poisonous and can be eaten. People around the world have been growing edible mushrooms for hundreds of years. These mushrooms are packed full of vitamins and nutrients and make delicious meals.



Tell us about your farm/business.
We founded Windy City Mushroom at the start of 2020 when we saw a need for reliable and

How do you grow and harvest your mushrooms?





BUZZING WITH QUESTIONS

The Inquisitive Mind of Charles Henry Turner

BY: JANICE N. HARRINGTON

Concepts	Book 1	Book 2	Activity or Connections
Bees	Buzzing With Questions	Flight of the Honeybee by Raymond Huber	Make Turner's cornucopia for testing whether bees can see color
Bees	Buzzing With Questions	Honeybee: The Life of <i>Apis mellifera</i> by Candace Fleming	Make a bee hotel
Plants Pollinated by Bees	Buzzing With Questions	Mystery Vine by Cathryn Falwell	Illinois pumpkins and apple orchards
Camera (Pictures)	Buzzing With Questions	The Girl Who Thought in Pictures: The Story of Dr. Temple Grandin by Julia Finley Mosca	Collect or draw pictures of insects
Entomology	Buzzing With Questions	Evelyn the Adventurous Entomologist: The True Story of a World-Traveling Bug Hunter by Christine Evans	Turner made amazing charts to record information he collected - practice making various types of charts

Resource Books:
 Biology for Kids: Science Experiments and Activities Inspired by Awesome Biologists, Past and Present by Liz Lee Heinecke
 Funky Fungi: 30 Activities for Exploring Molds, Mushrooms, Lichens, and More by Alisa Gabriel and Sue Heaverrich



ROOTING FOR PLANTS

The Unstoppable Charles S. Parker, Black Botanist and Collector

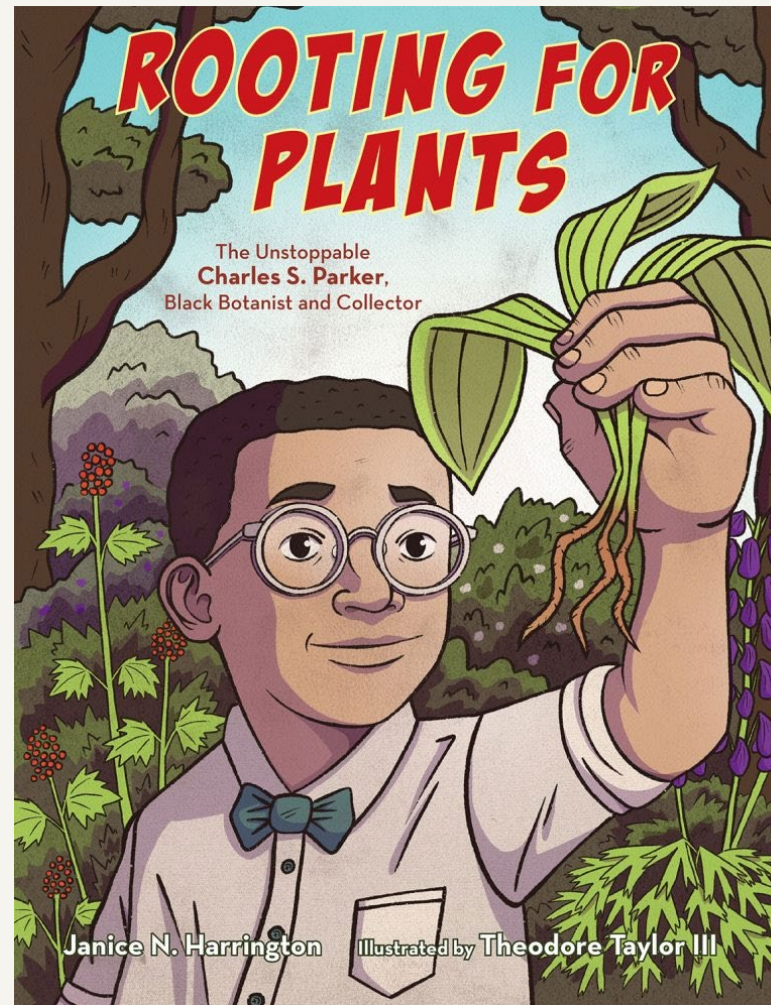
By: Janice N. Harrington

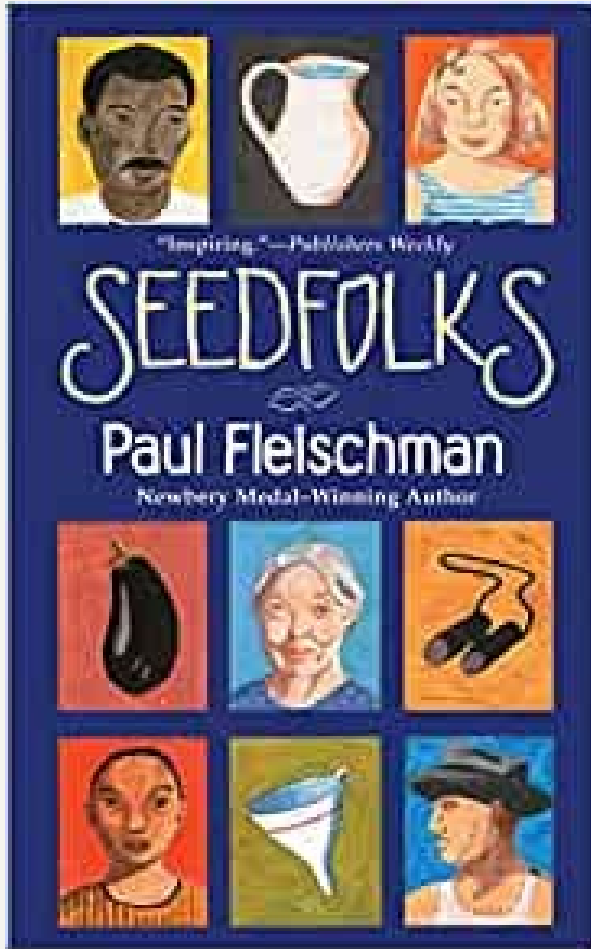


Concepts	Book 1	Book 2	Activity or Connections
Botanists	Rooting for Plants	Queen of Leaf: The Story of Botanist Ynes Mexia by Stephen Briseño	Dry a plant to make a specimen mount
Plant Collecting - Nature	Rooting for Plants	What's in Your Pocket? Collecting Nature's Treasure by Heather L. Montgomery	Go on a nature walk- What plants can students find?
Plant Collecting - Foraging	Rooting for Plants	Watercress by Andrea Wang	Forage for natural materials for crafts
Farming	Rooting for Plants	Farmer Will Allen and the Growing Table by Jacqueline Briggs Martin	Illinois farming and local farmer's markets
Plants: Gardens	Rooting for Plants	In the Garden with Dr. Carver by Susan Grigsby	Grow a classroom herb garden
Farming: Gardens	Rooting for Plants	Right This Very Minute: A Table-to-Farm Book About Food and Farming by Lisl H. Detlefsen	Illinois farming and crops
Farming: Potatoes	Rooting for Plants	No Small Potatoes: Junius G. Groves and His Kingdom in Kansas by Tonya Bolden	Illinois crops
Farming	Rooting for Plants	Thank A Farmer by Maria Gianferrari	Illinois farming and foods

Resource Book:

Biology for Kids: Science Experiments and Activities Inspired by Awesome Biologists, Past and Present
by Liz Lee Heinecke





Garden in a Glove

Name: _____

VOCABULARY

Annual – life cycle of one year

Perennial – life cycle of more than two years

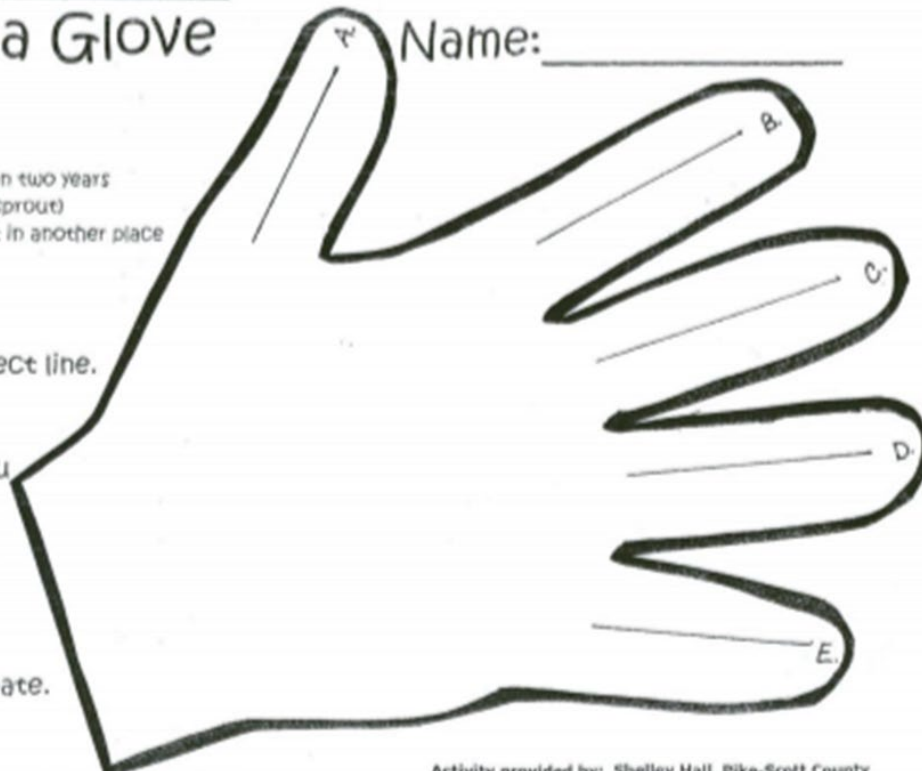
Germination – to begin to grow (sprout)

Transplant – to remove and plant in another place

What seeds did you
plant in each finger?
Write them on the correct line.

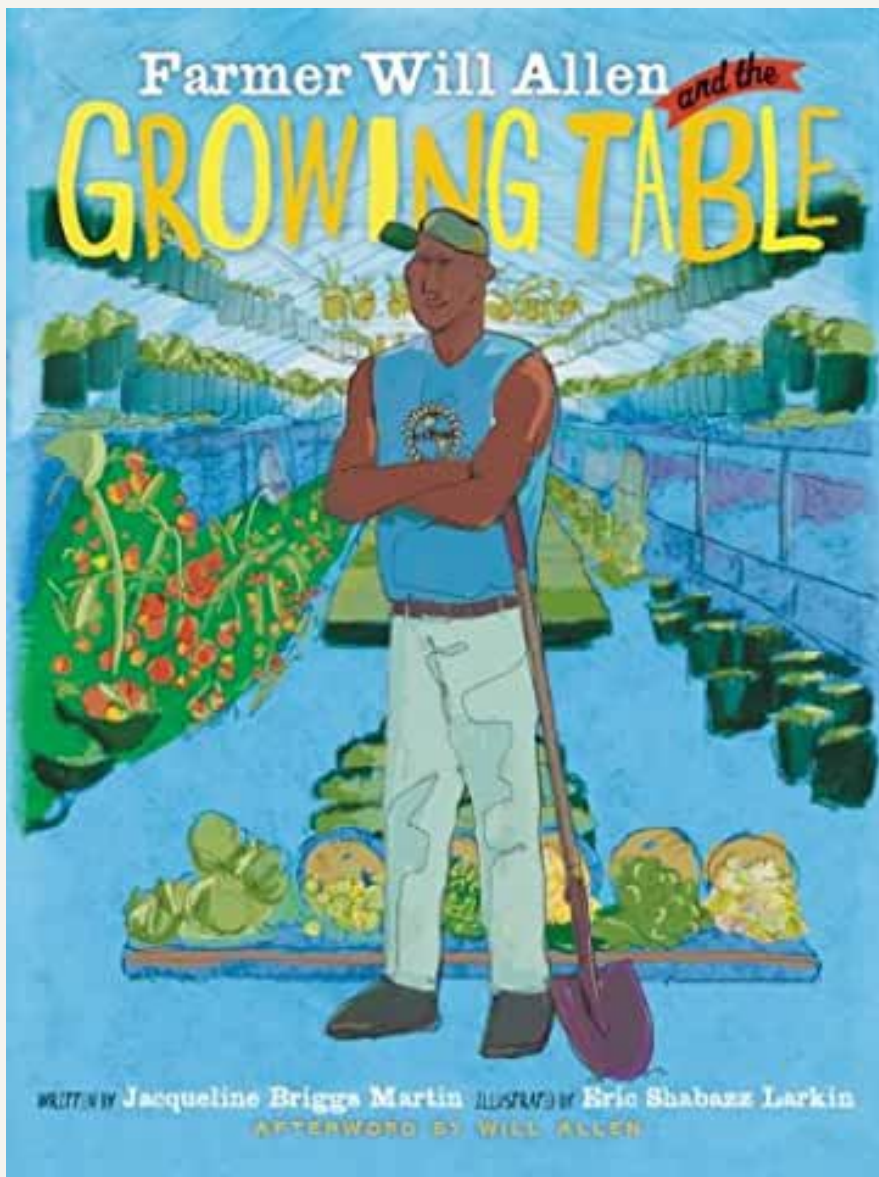
Write the date when you
see the first sprout.

Number each finger
in the order they germinate.

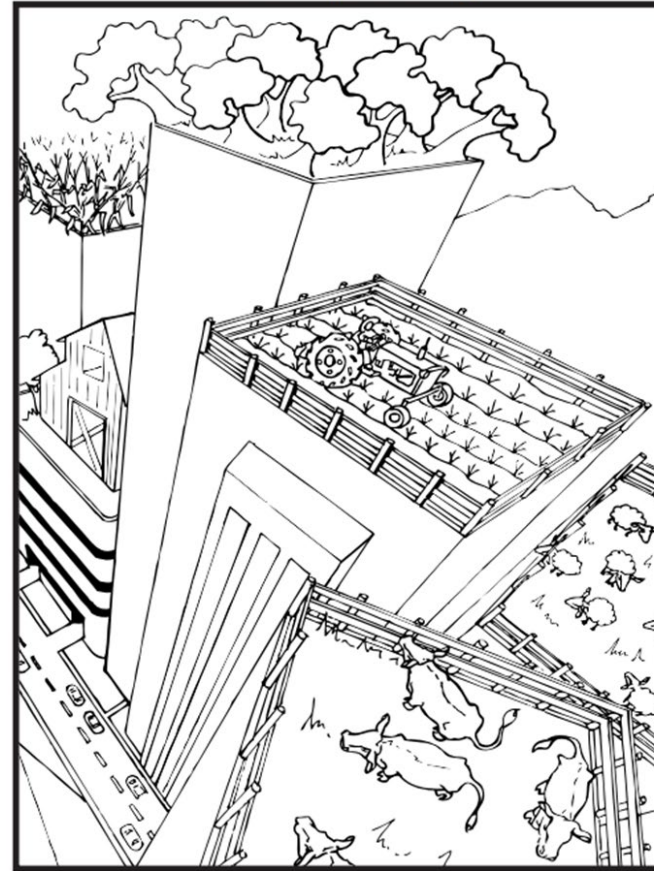


University of Illinois – U.S. Department of Agriculture – Local
Extension Councils Cooperating. University of Illinois Extension
provides equal opportunities in programs and employment.

Activity provided by: Shelley Hall, Pike-Scott County
Agricultural Literacy Coordinator
1301 E. Washington, Pittsfield, IL 62363
Ph. 217.285.5543 Email smhall@uiuc.edu



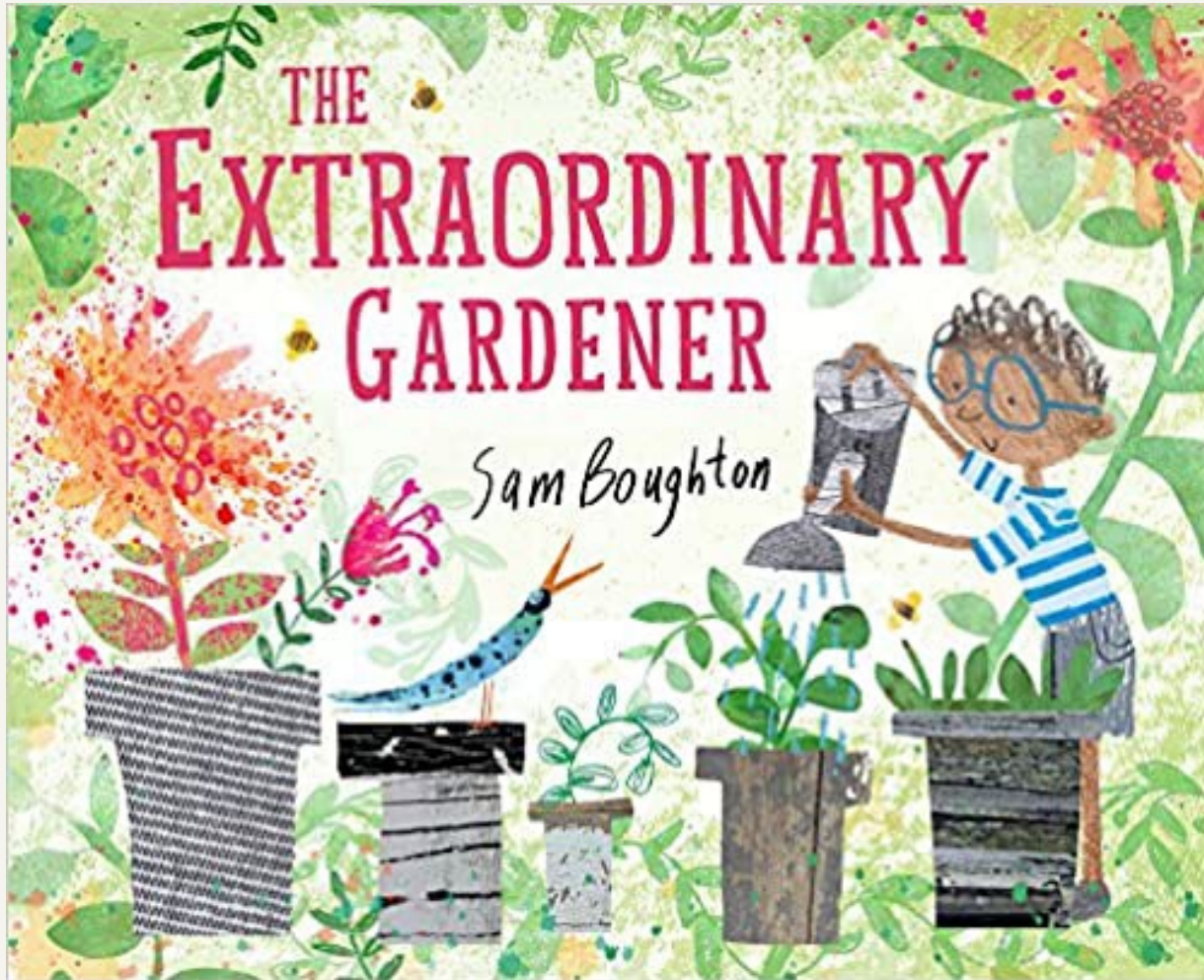
Rooftop Farming



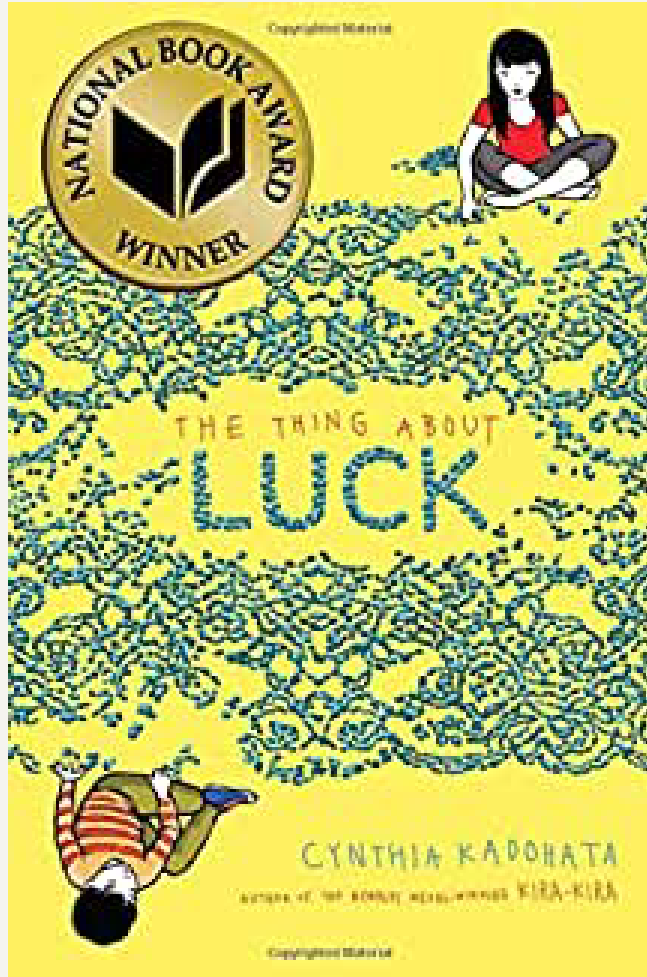
Create a caption:

What Land Works Best

https://agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=372&search_term_lp=urban







Wheat Grinding

Grade Levels: 3-5

Purpose: The purpose of this activity is for the students to learn more about the specific parts of a wheat stalk and how the wheat milling process works.

Common Core State Standards: CCSS.ELA-Literacy.RI.4.3; RI.4.4; RI.4.5; RF.4.3a
CCSS.Math.6.SP

Next Generation Science Standards: Interdependent Relationships in Ecosystems: 3-LS4-3; 3-LS4-4
Structure, Function and Information Processing: 4-LS1-1

Illinois Social Science Standards: SS.ED.3.2; SS.G.3.3; SS.H.2.3

Suggested Reading Materials:

IAITC's Wheat Terra Nova

IAITC's Wheat Ag Mag

Farmer George Plants a Nation by Peggy Thomas ISBN: 978-1620910290

The Thing About Luck by Cynthia Kadohata ISBN: 978-1442474659

Materials Needed:

- Wheat Stalks
- Salt or Pepper Grinder

Procedure:

1. Show students wheat stalks.
2. Go over the parts of the wheat stalk with the students so they can understand the directions for dissection.
 - ⇒ **Stalk**—the entire plant.
 - ⇒ **Head**—the part of the wheat plant that contains the kernels.
 - ⇒ **Beard**—the bristle-like parts of the wheat plant that cover and protect the kernels.
 - ⇒ **Kernel**—the seed from which the wheat plant is grown or that people harvest from the wheat plant to grind into flour.
 - ⇒ **Stem/Straw**—the part of the wheat plant that supports the head and is known as straw after harvest.
3. Dissect the wheat using the following steps:
 - ⇒ Hand out stalks of wheat to the students.
 - ⇒ Break the head off the stem.
 - ⇒ Make a straw out of the stem by breaking it to avoid the nodes.
 - ⇒ Lay the wheat head flat on a hard surface and pat with your hand to shake out the kernels.
 - ⇒ Have the students count their kernels.
4. Put the kernels of wheat into a salt or pepper grinder and have the students mill their wheat into flour. What simple machines are being used?
5. Talk about different ways to grind wheat. The Native Americans did it using rocks, etc. Have students design their own method of grinding wheat and then test their machines.
6. Talk about the uses of wheat flour to make pastas, breads, desserts, etc.

Lesson Extenders:

- Ask students to count how many kernels they removed from the head of their wheat plant. Record each number on the board. Have students find the mean, median, mode and range of the set of numbers.
- Have students find the gluten in wheat by chewing the kernels. Before there was chewing gum in the store, farmers made their own with grains of wheat!



CAREERS



JENNY YANG
Entrepreneur

Phoenix Bean, LLC
Chicago, IL

How long have you been with Phoenix Bean?

I took over Phoenix Bean 16 years ago and have grown the company from 6 employees to 18. We expect to grow significantly in the next few years.

What is tofu, exactly?

Tofu is basically soybean curd. Many people know edamame, or yellow raw soybeans, but do not know they are eating soybeans. To make our tofu, we clean our soybeans which have been purchased from the farmers. Then we soak them overnight to let the soybean open up and begin sprouting. When the sprout is about 1/3 of an inch, they are perfect for grinding. We grind the whole soybean and pasteurize the mash. This process creates a solid, sometimes called soy flour, and a liquid, or the curd.

Is there any waste from producing your product?

We actually recycle much of our soybean scrap. We work with Loyola University where they are turning that scrap into a product for mushroom growers. There is still a lot of protein in that material which can help the mushrooms grow.

Why do you think more people are eating soybean products like tofu and edamame in the U.S. in recent years?

People are realizing that soybeans are really nutritious. In Japan for example, they eat them to reduce wrinkles in their skin. You can lose some of that nutrition the more you process the soybean, so people are turning to products like our tofu ground from the whole bean.

Beanie Baby

Now that you know how soybeans grow, why not grow your own?



MATERIALS NEEDED:

- Jewelry size resealable bag (found in craft stores)
- Crystal Soil (Found in plant nurseries or from Flinn Scientific 800-452-1261)
- Hole Punch
- Water
- Measuring spoons
- Soybeans
- Yarn

1. Punch a hole in the top of your bag, above the zipper seal.
2. Place ¼ teaspoon of Crystal Soil into the bag.
3. Drop 1-2 soybeans into the bag.
4. Add 1 tablespoon of water.
5. Seal your bag.
6. Insert the yarn into the hole to make a neck.

7. Use the yarn to hang your beanie baby around the room to chart the effect of various exposures to light and heat. You might want to wear it around your neck and under your shirt to provide constant heat for your Beanie Baby!
8. Check your Beanie Baby several times a day to watch the process of germination.
9. Record the growth on a chart.



Cool BEANS!

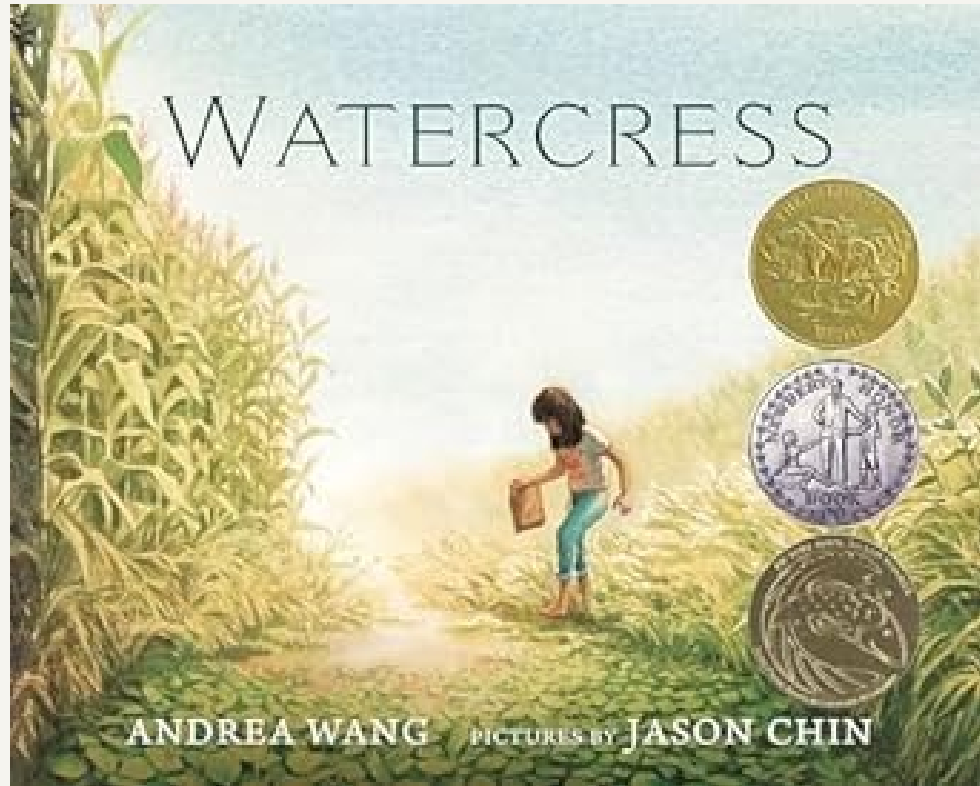
Soybeans are the seeds of the soybean plant. They grow on the soybean plant in pods, like peas or peanuts. Also,

SEED COAT – outside cover that protects the seed

HILUM – brown spot; allows water into the seed coat

COTYLEDON – the first food



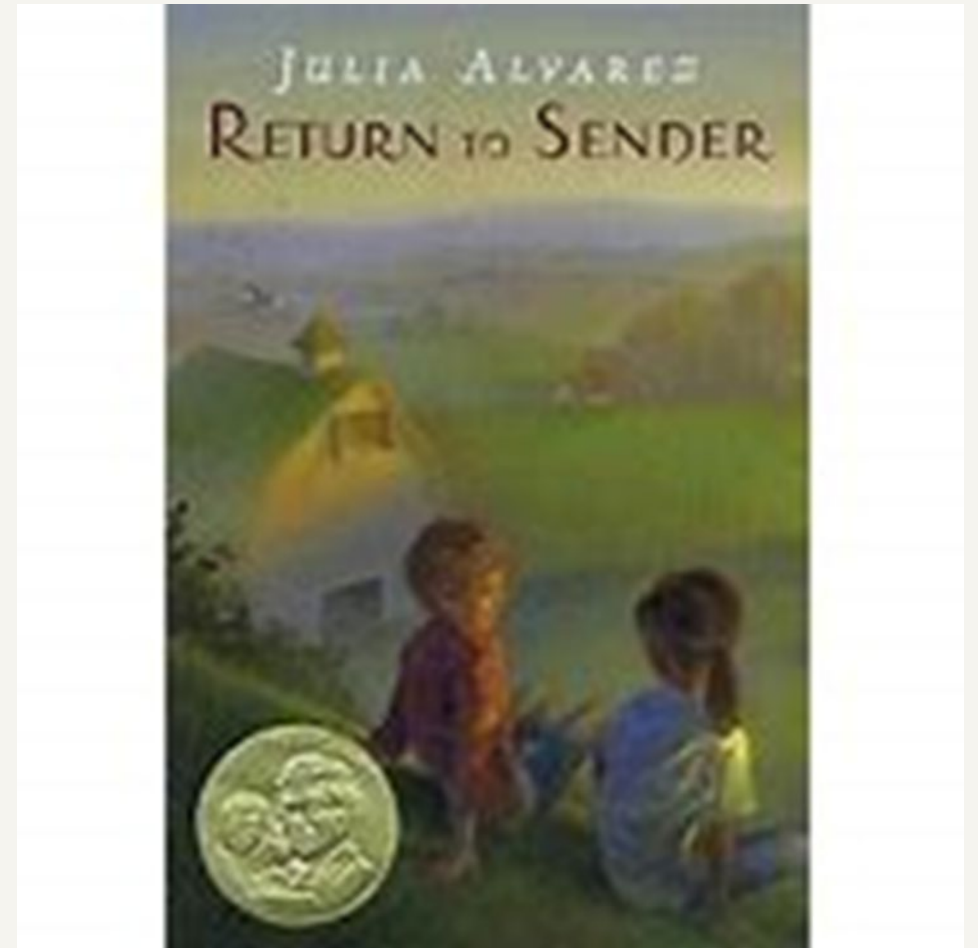
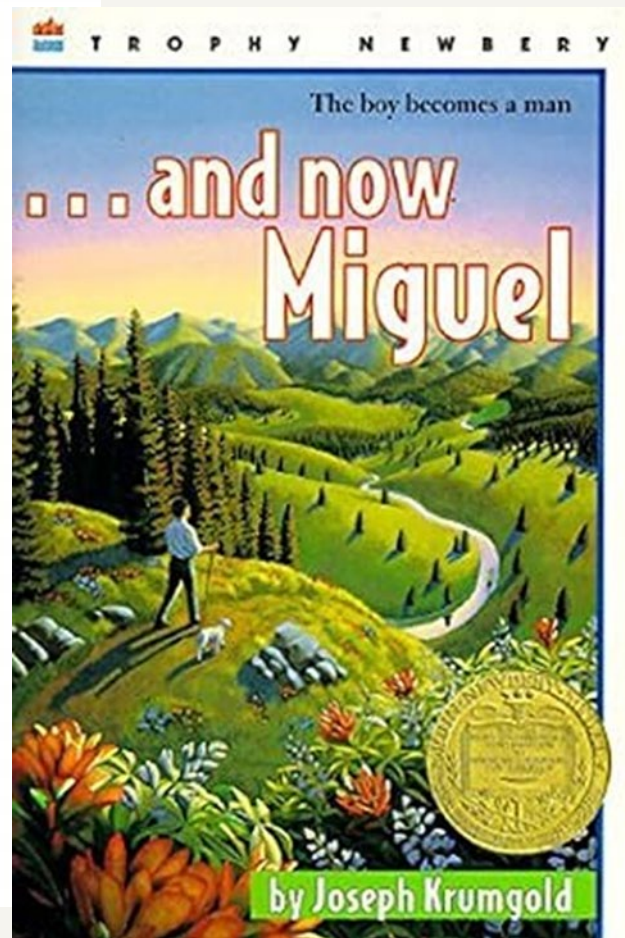
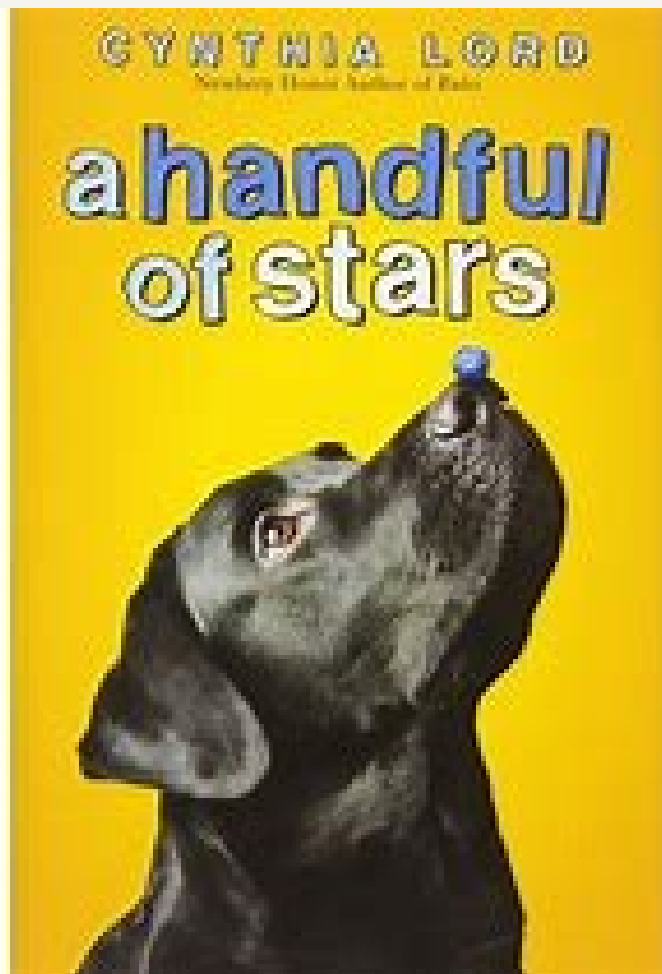


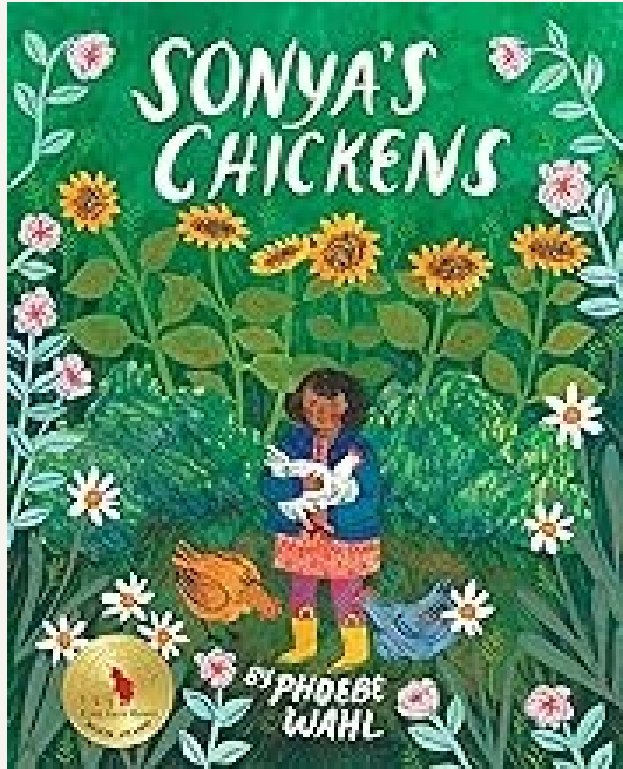
Microgreens



Microgreens are young seedlings. They are tender and nutritious edible greens produced by sprouting the seeds of various different vegetable species and herbaceous plants. Microgreens are used in a variety of foods such as sandwiches, wraps, and salads.

According to a 2014 USDA study, many microgreens have five or more times the Vitamins C, E, & K as their adult counterparts. Microgreens are quick and easy to grow. It only takes seven to fourteen days for the microgreens to grow enough to be harvested.

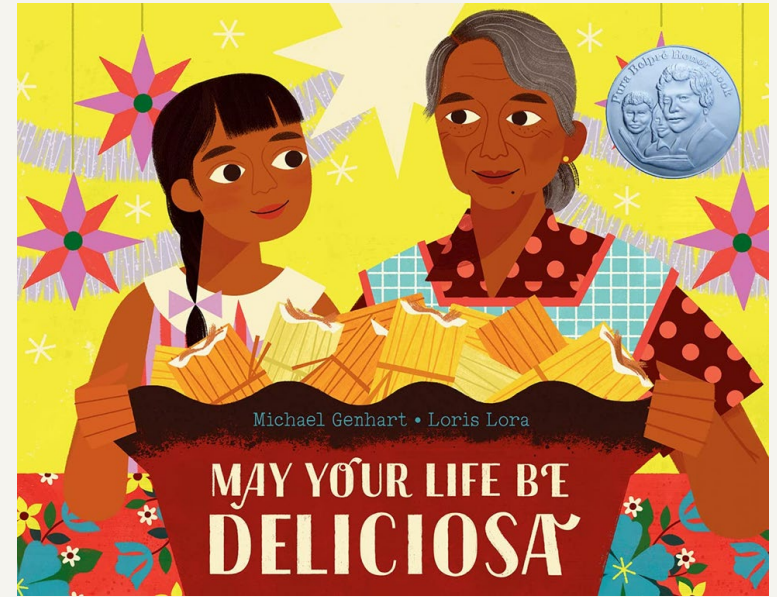
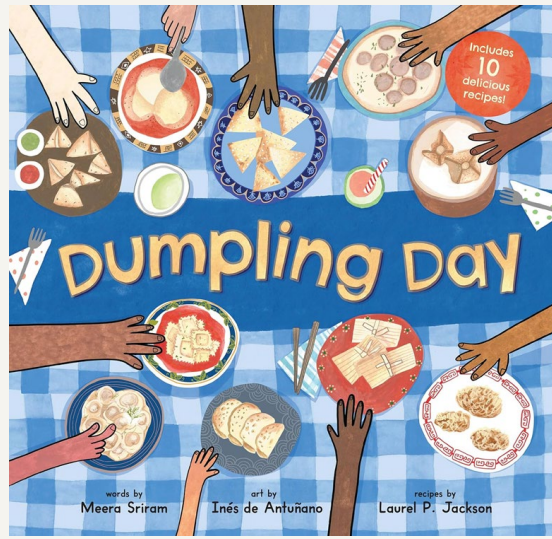
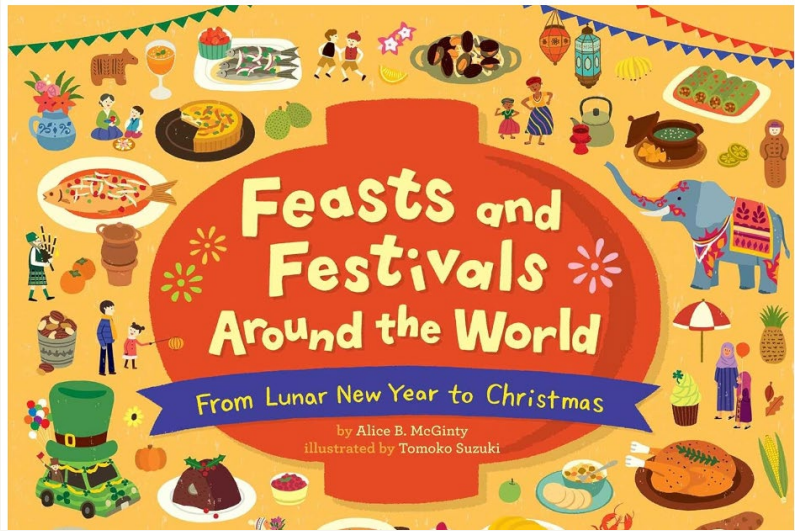




Name: _____

EMBRYOLOGY EXPLORATION

A simple illustration of a yellow chick walking to the right. Behind the chick is a trail of seven small, brown, arrow-shaped marks pointing in the direction the chick is walking.



https://agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=700&author_state=0&search_term_lp=greenhouse

Desktop Greenhouses

Grade Level(s)

3 - 5

Estimated Time

2 hours plus one week of observations

Purpose

Students will investigate the importance of light to plants by creating a desktop greenhouse investigation and exploring the process of photosynthesis.

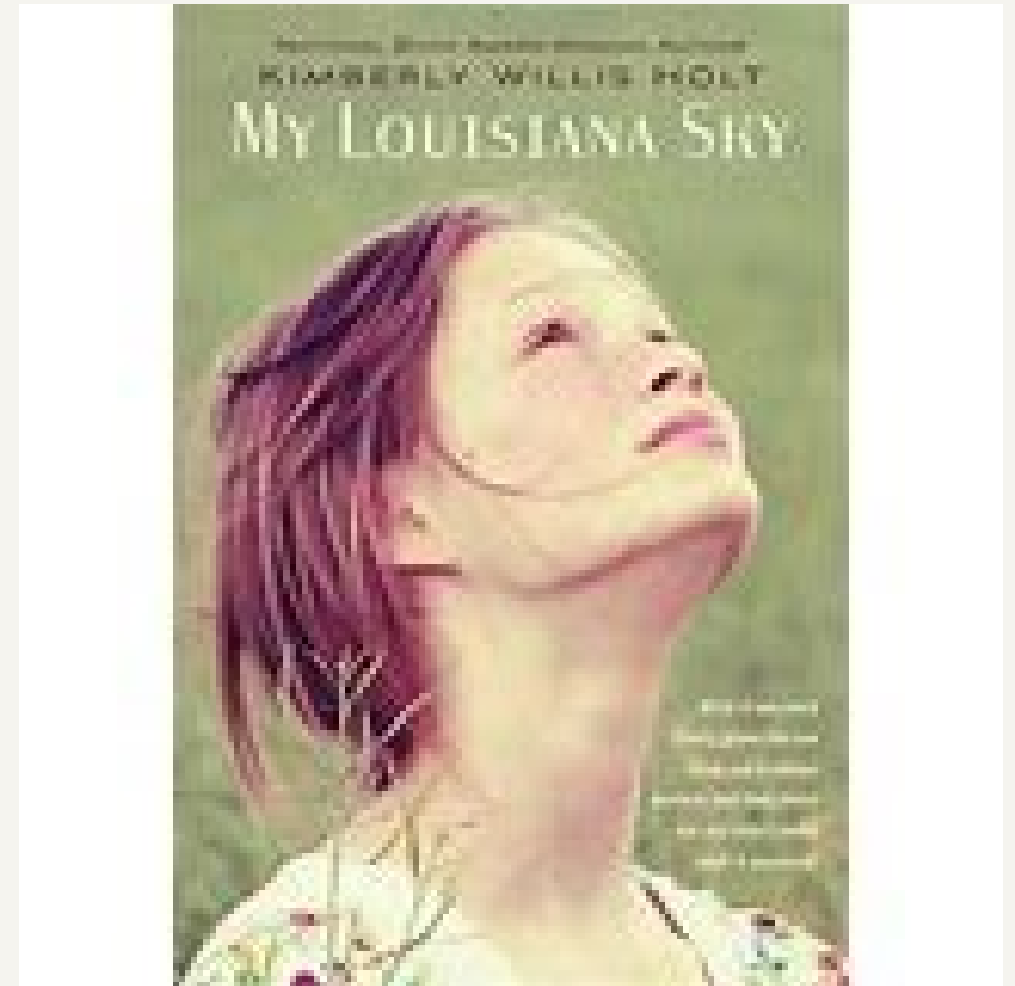
Materials

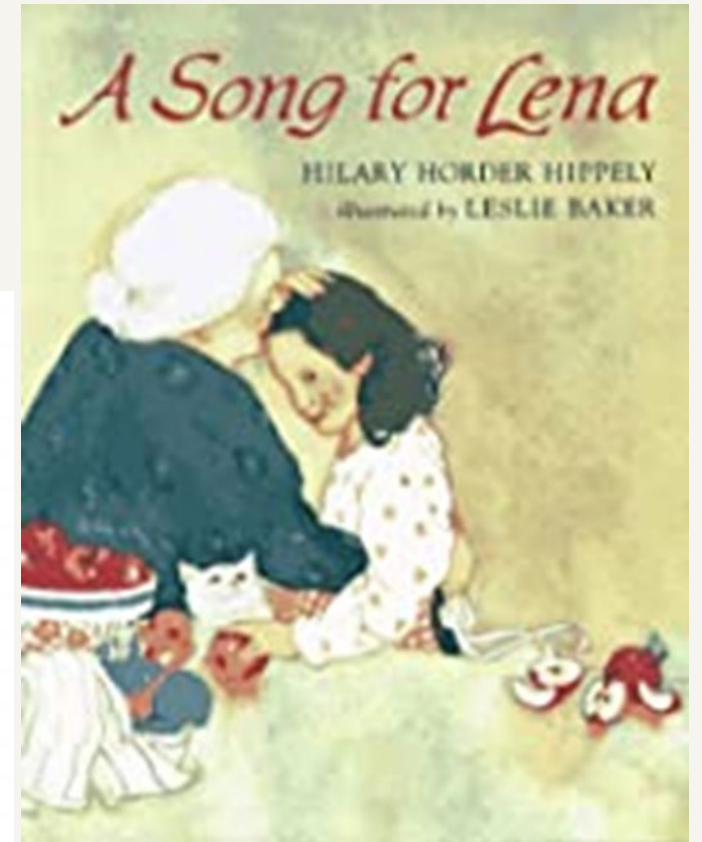
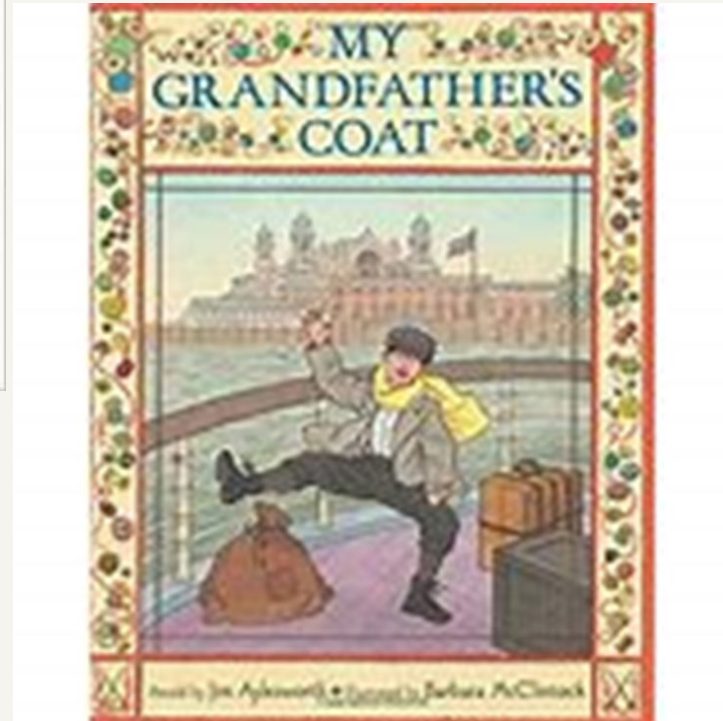
Interest Approach — Engagement

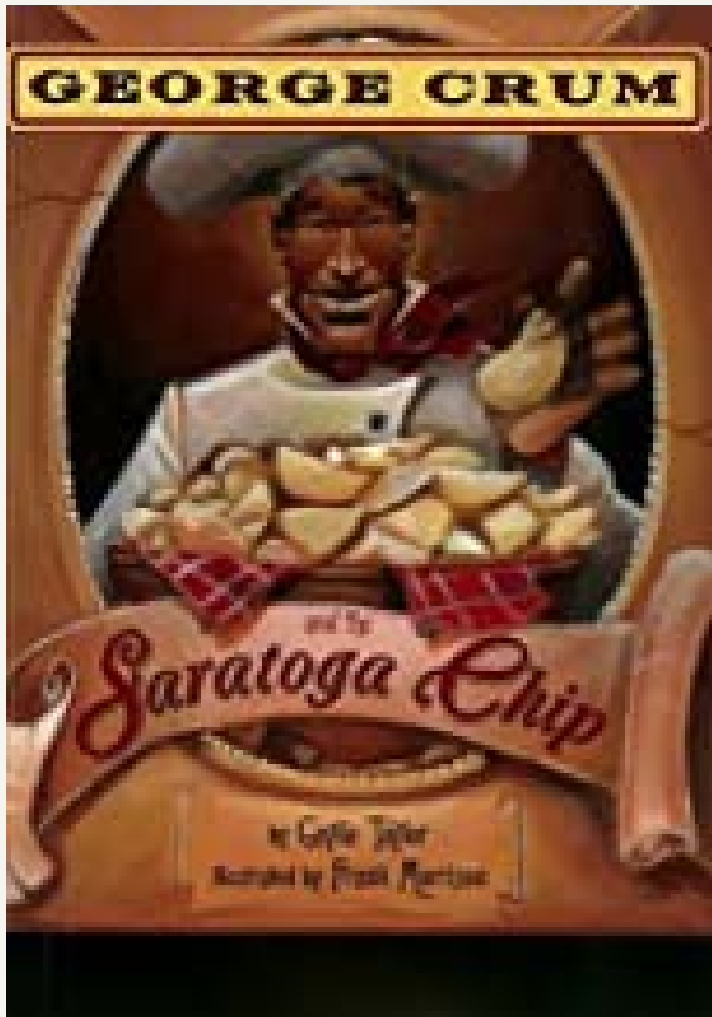
- *Big City* picture
- [Ski Town Turns Car Park into Vertical Farm for Local Jobs/Food](#)

Activity 1: Do Plants Need Light?

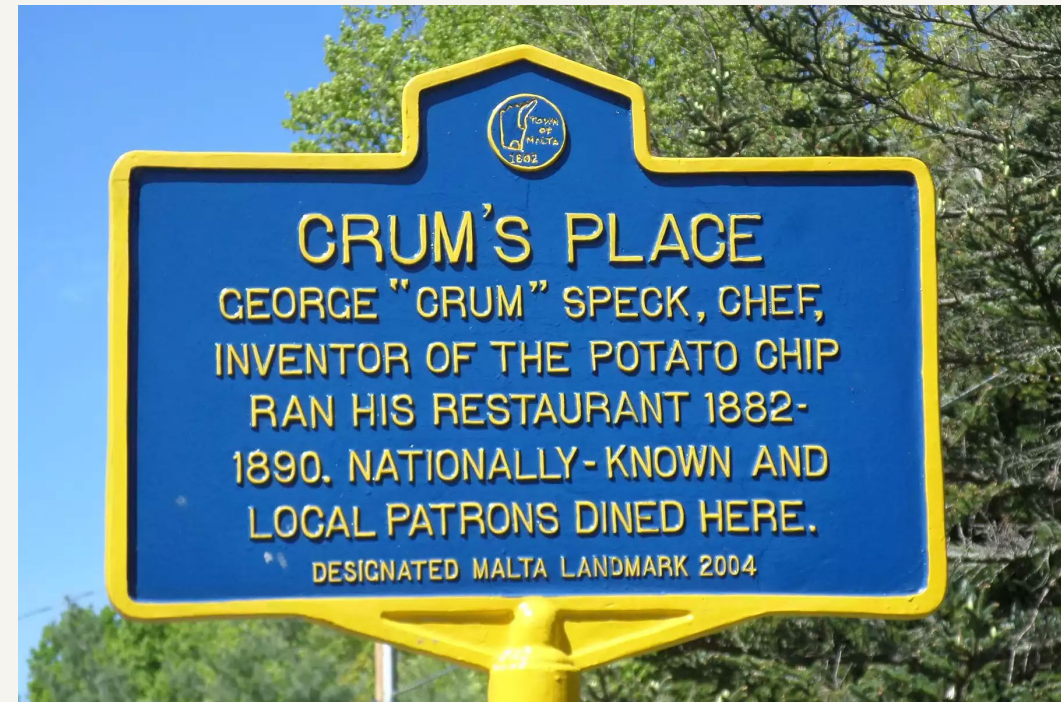
- [Desktop Greenhouses](#) video

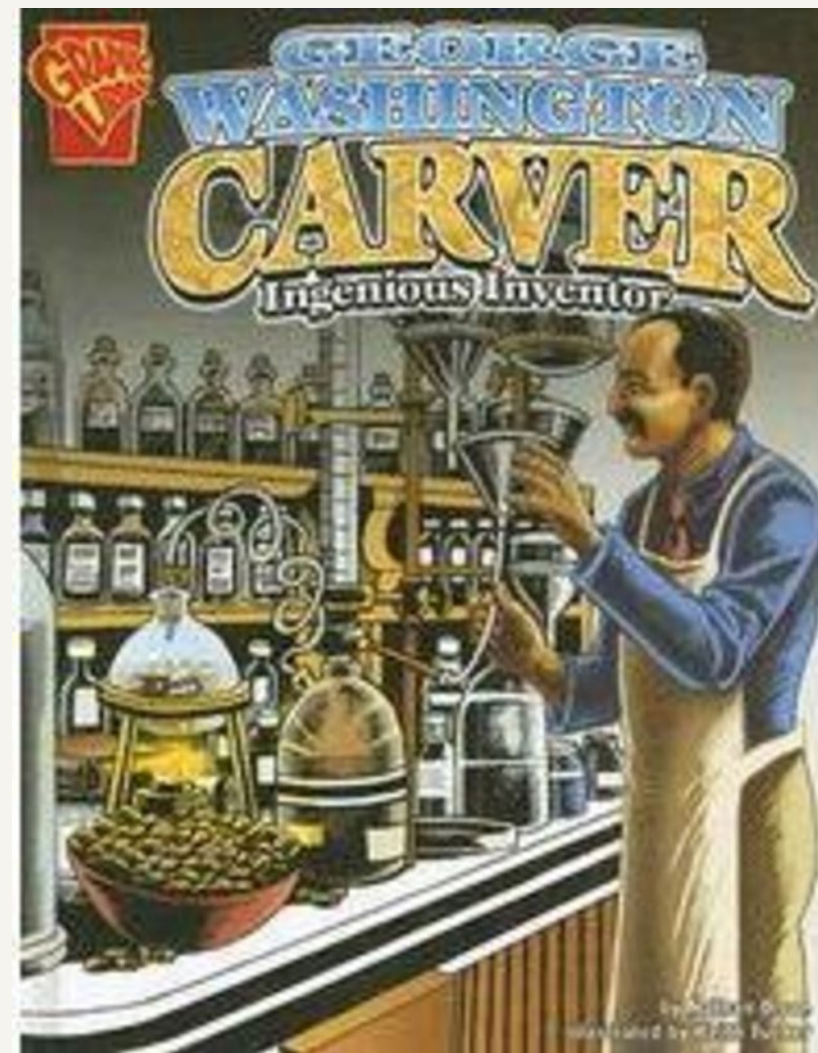
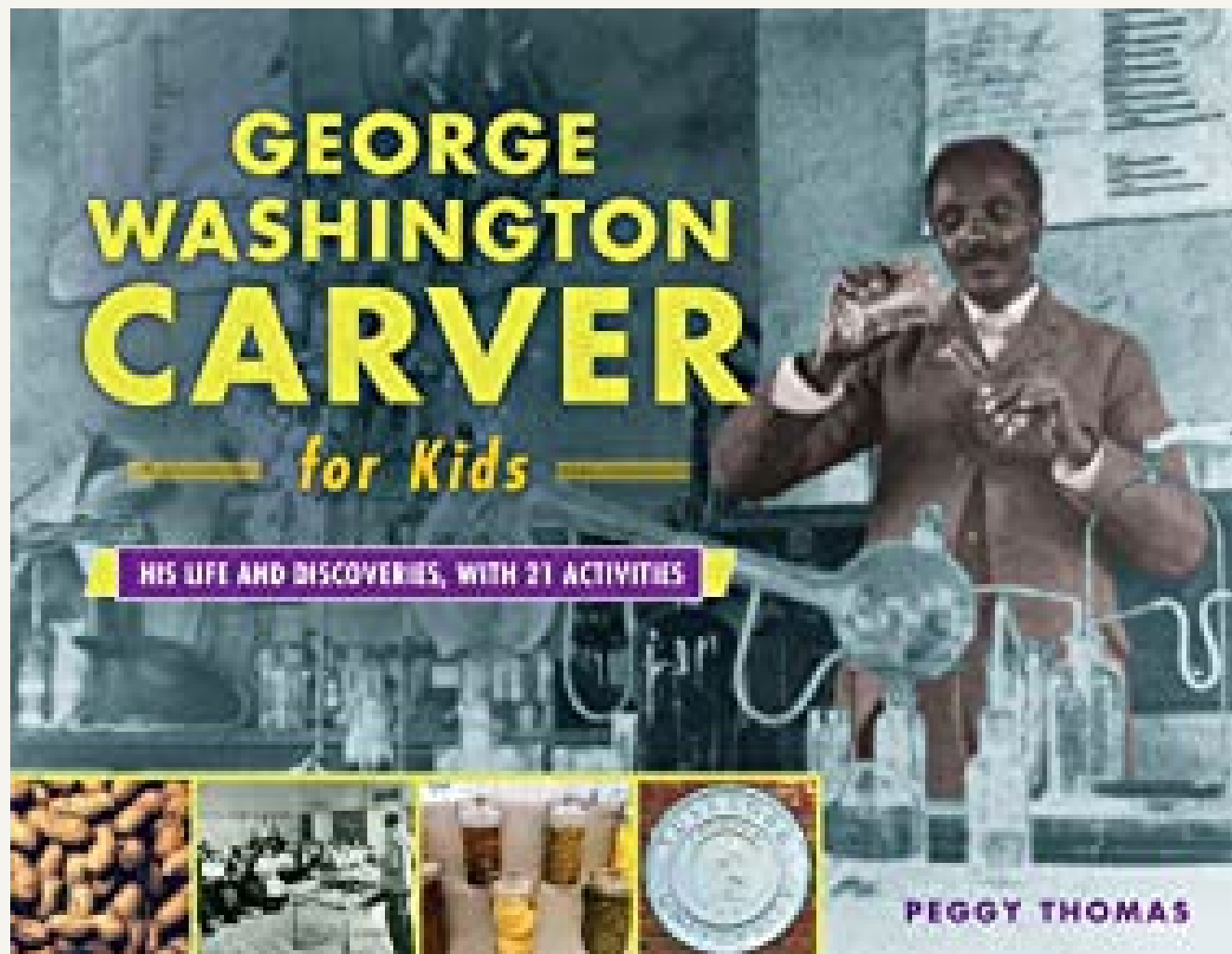


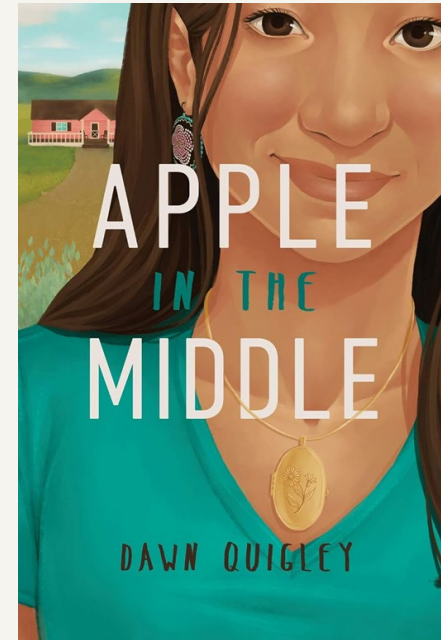
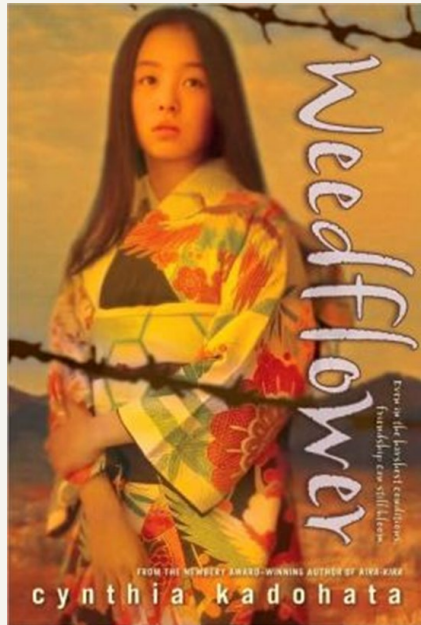
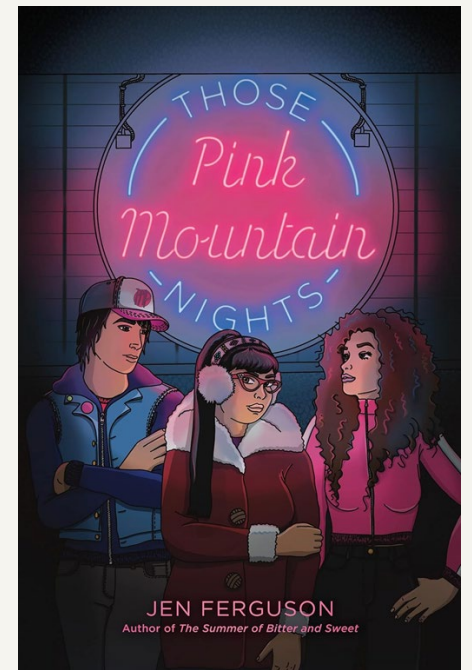
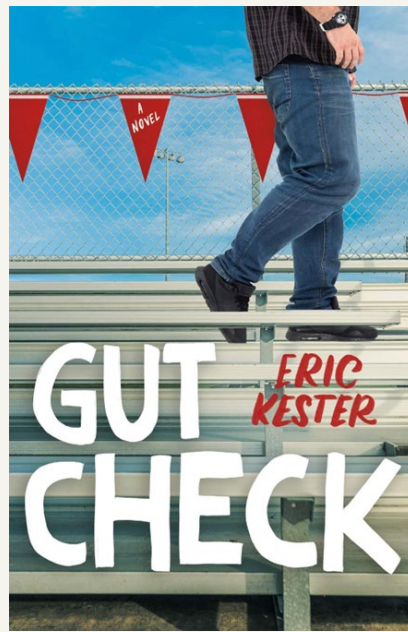
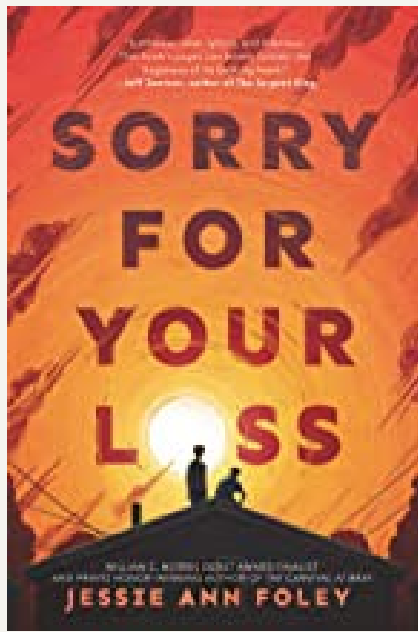


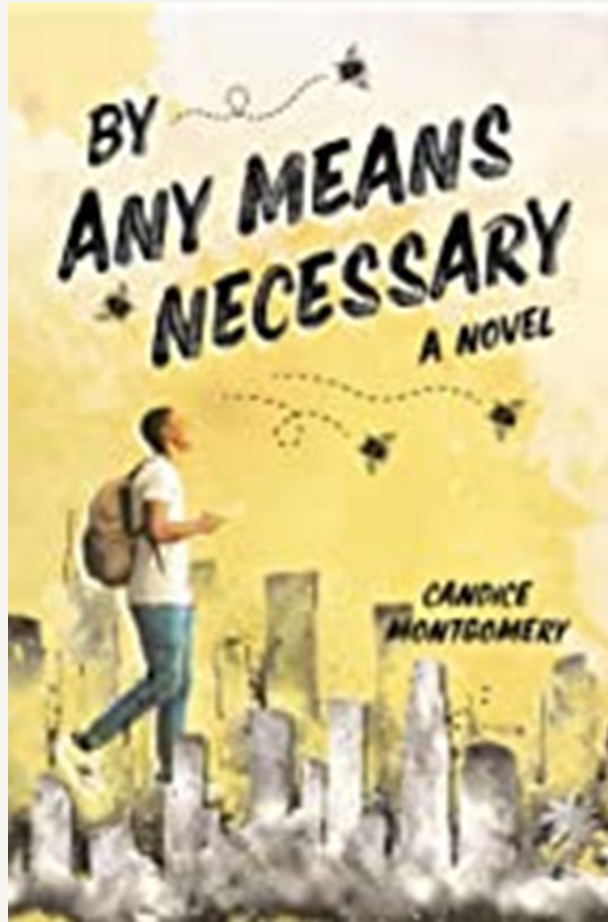
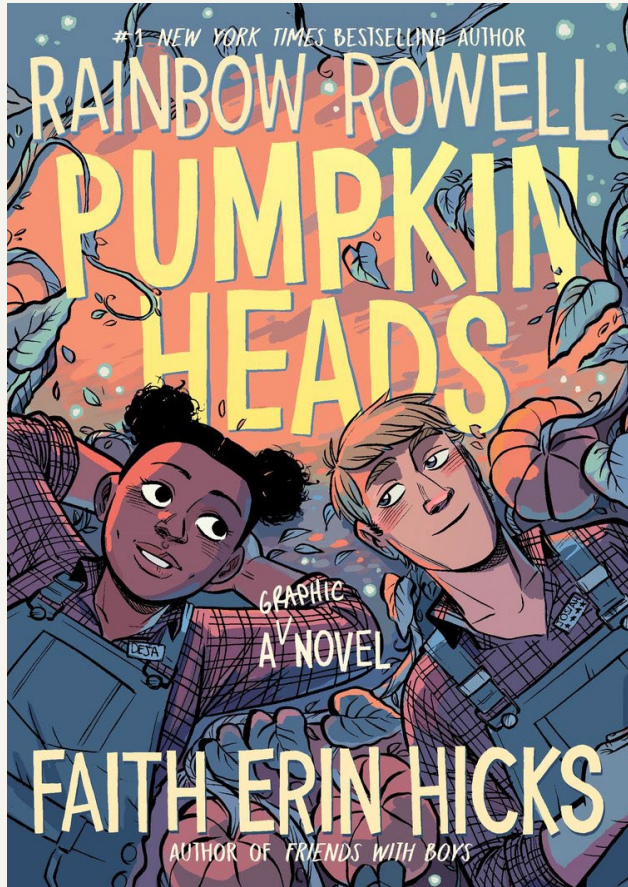


George Crum and the Saratoga Chip by Gaylia Taylor









National Agricultural Literacy Curriculum Matrix

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Lesson Plans

agritourism



Grade Level

Content Area

Agricultural Literacy Outcomes

Common Core Connections

Submitted by a Specific State

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Print Lesson Plan

Agritourism: Extreme Farm Makeover

Grade Level(s)

6 - 8

Estimated Time

Nine 45-minute class periods

Purpose

Through project-based learning, students will work in groups to design an agritourism experience that will increase profits for a family-owned farm and provide agricultural literacy opportunities for community members.

Materials

"A beautiful and important book about one of the world's most important subjects." —Eric Schlosser, author of *Fast Food Nation*

HUNGRY PLANET



WHAT THE WORLD EATS

PETER MENZEL and FAITH D'ALUISIO • Foreword by Marion Nestle

Illinois
AGRICULTURE
in the ClassroomSM

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Lesson Plans



▶ Grade Level

▶ Content Area

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Print Lesson Plan

Filling the Global Grocery Bag

Grade Level(s)

9 - 12

Estimated Time

90 minutes

Purpose

Students learn what factors affect a country's ability to produce their own food and how food expenses differ throughout the world.

Materials

Activity 1:

- *Farming Around the World PowerPoint*

And Many, Many More.

**Accurate Agriculture,
Powerful Stories,
Diverse Voices**

