

# **GARDEN OF READING'**

**A STORYTIME ABOUT GARDENING**

## **LESSON PLAN**



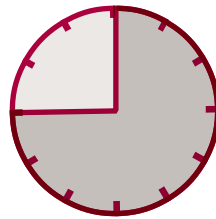
**Wisconsin Water Library**  
UNIVERSITY OF WISCONSIN-MADISON

FEBRUARY 2020

# GARDEN OF READIN'

## A STORYTIME ABOUT GARDENING LESSON PLAN

This lesson plan works well with children in preschool through second grade. The lesson lasts from 45 minutes to an hour, based on the number of books read. To orient the children to what it means to be a scientist, think scientifically and “do science,” use the “[A Scientist Is...](#)” and “[Scientific Method](#)” handouts available at the end of this lesson plan.



### SING

Begin with your favorite welcome song.

### SCIENCE CHAT

Begin a talk on gardening by asking the children what they know about it. Let them brainstorm ideas and be sure to encourage their participation.





## SOME FACTS ABOUT PLANTS

**What do we need for the plants to grow?** Water, nutrients, light, air and soil, or another material in which to grow. Plants don't actually need soil; they just need a substance that holds moisture near their roots.

**What are the parts of a plant?** Show pictures included in the "Parts of a Plant" guide starting [on page 11](#).

**Where do new plants come from?** If a seed arrives in a suitable location, with the right temperature and enough moisture, it will sprout and begin to grow (called "germination"). The roots of the baby plant grow down and a shoot grows up toward the sun. For most plants, a stem will support leaves that make food for the plant using light (a process called "photosynthesis").

As the plant matures, it is likely to produce flowers. The flowers produce a powdery substance called pollen. When that pollen is moved from one part of the flower to another part of the same flower or a different flower, it has been pollinated. This movement, called pollination, can be caused by insects, wind, birds, bats or even humans. Once the flower has been fertilized, it grows a seed (or seeds) and a fruit or pod to protect it. (Technically, the male reproductive cells from the pollen move along the flower to the ovary, which fertilizes the flower. The ovary wall develops into the fruit or pod.)

The seeds grow and mature, and then they are spread in different ways — by animals that eat them, by clinging to the fur of animals or clothes of humans or by the wind. Once the seeds land in a suitable location, the cycle begins again.

**What kinds of food do you eat that come from a garden?** Give examples. Compare parts of plants that are food – [see page 13](#).



# READ

Here are some suggestions from the Wisconsin Water Librarians, but feel free to swap out with your own or visit our subject-specific reading list: [Gardening](#).

**[My Garden](#)** (2010) by Kevin Henkes.

“In a whimsical flight of fancy, a little girl helping her mother in the garden imagines what her own ideal garden would be like. It would have flowers that could change colors and patterns, and that would grow back as soon as you picked them. The rabbits in her garden wouldn’t eat the plants ‘because the rabbits would be chocolate and I would eat them.’... Joyful illustrations combine circular images on the story’s opening and concluding pages that show the little girl working in her real garden with full-page images in between that explode with her colorful imaginings ... (CCBC) Highly Commended, 2011 Charlotte Zolotow Award  
For ages 3-6.

**[It’s Our Garden: From Seeds to Harvest in a School](#)** (2013) by George Ancona.

“Ancona takes readers on a yearlong tour of one Santa Fe, N.M., school garden. The garden at Acequia Madre Elementary School will no doubt give rise to the little green monster in the hearts of more than a few educators. ... While there are some educational tidbits scattered in the text — for example, how plants are pollinated — this is less a gardening book for children than a book for those educators who want to go from the dreaming stage to the planning and doing stages ... and who want to involve their students in the process. It’s sure to bring out the green thumb of many an educator, and it just may provoke some kids to get out in their own yards and make a garden. (bibliography, websites).” (Kirkus Reviews) (Note: “[Nuestro Huerto](#),” a Spanish-language edition, was published in 2016.) For ages 5-8.

**[A Seed is Sleepy](#)** (2007) by Dianna Hutts Aston; illustrated by Sylvia Long.

“The author and illustrator explore every aspect of seed biology and ecology helping us see how perfectly suited they are to their role and how dependent we are on them for our food and shelter. Every page is a joy to look at with gorgeous ink and watercolor illustrations flowing across the paper, each plant and seed being carefully annotated. The carefully researched text is both informative and entertaining, making what could be a dry subject interesting and engaging for readers of all ages. (Through the Looking Glass Children’s Book Reviews)  
For ages 5-10.

**[Secrets of the Garden: Food Chains and the Food Web in Our Backyard](#)** (2012) by Kathleen Weidner Zoehfeld; illustrated by Priscilla Lamont.

“A young girl describes her family’s efforts planting, tending, and eventually harvesting their garden in this informational picture book that pairs a fictional story line, which itself provides plenty of facts about growing things, with a factual narrative developed as an ongoing commentary from chickens Maisy and Daisy. In addition to the poultry’s patter (dialogue shown with the use of speech bubbles), information is provided in charts, diagrams, and other dimensions of the illustrations in a book that discusses how plants store energy, and their role in the larger food chain and food web. The facts go down easily, and the garden comes up beautifully, in a story that culminates with a bountiful autumn harvest.” (CCBC) For ages 4-8.

**Planting the Wild Garden** (2011) by Kathryn O. Galbraith; illustrated by Wendy Anderson Halperin. “Most children know that domestic seeds are sown and cultivated by farmers, but how do wild plants grow and spread? In lighthearted prose punctuated with sound effects (“Per-chik-o-ree! Per-chik-o-ree!” cries a goldfinch) and enlivened with typographic curves and swoops, Galbraith explains that seeds from wild plants float in the wind, snap off plants, fall in the rain, and get carried — intentionally or unintentionally — by animals to new places where they sprout and thrive. ... Small natural dramas are writ large as [Halperin’s watercolors] show plants and seeds in tender close-ups, the small panels complementing sweeping landscapes watered with rain, sparkling with stars, or glowing in the sunset — sometimes all at once. It’s a thoroughly handsome book, suffused with calm.” (Publishers Weekly) **For ages 4-8.**

**What Will Grow?** (2017) by Jennifer Ward, illustrated by Susie Ghahremani. “Twelve types of seeds are introduced in descriptive rhyming couplets (‘Fluffy, white. Taking flight.’) followed by the question: ‘What will grow?’ Guesses are encouraged by visual hints, and confirmed in both art and text ... Fold-out pages are used intermittently to emphasize the growth trajectory of a seed: a page that folds down shows a cut-away of carrots growing underground, while a page that folds up showcases a tall pine tree. Final pages offer supplemental information about each of the seeds and outline the four stages of growth from seed to plant.” (CCBC). **For ages 2-5.**

**Tippy-Toe Chick, Go!** (2003) by George Shannon, illustrated by Laura Dronzek. “Hen and her chicks go to the garden every morning for their favorite treat, ‘sweet itty-bitty beans and potato bugs.’ But one morning a dog is blocking their way. ... It’s tiny Little Chick, a curious, free-spirited soul, who has the brains and nerve to get the dog tied up in a tangle. George

Shannon’s delightfully told story is further enlivened by Laura Dronzek’s wonderful acrylic illustrations that are funny and endearing. ...” (CCBC) Honor Book, 2004 Charlotte Zolotow Award **For ages 2-5.**

**Busy in the Garden** (2006) by George Shannon, illustrated by Sam Williams. “‘Zucchini / meeny / miney / moe. / Plant a seed / and watch it grow.’ George Shannon’s breezy collection of poems for young children celebrates things that grow and ways to play. The bountiful pages are brimming with verse about vegetables, fruit, and flowers, as well as outdoor games and activities ... Artist Sam Williams’s playful illustrations feature an abundance of children and animals and expressive garden bounty ....” (CCBC) **For ages 2-6.**

**Quiet in the Garden** (2009) by Alike. “A young, brown-skinned boy with bright and observant eyes heads outside to sit quietly in his backyard garden. ‘I am so quiet, I even hear the sounds around me — chirp, squeak, crunch. I can almost hear a butterfly flutter by. I sit still and listen.’ ... A thoughtful introduction to the peaceful and amazing aspects of simple gardens for very young children, Alike’s latest picture book concludes with directions for creating an outdoor garden.” (CCBC) **For ages 3-6.**

**The Ugly Vegetables** (1999) by Grace Lin. “Everyone in the neighborhood seems to be planting their spring gardens, none of which are like the garden planted by the mother of the Chinese-American girl featured in this story. Although she’s originally self-conscious about the differences, come harvest time she is pleasantly surprised by all the attention the neighbors pay the ‘ugly vegetables’ [and] her mom’s Chinese vegetable soup is definitely a roaring success enjoyed by all the neighbors who have been invited to share it. Based on the author/artist’s own childhood memories, the story concludes with her family recipe for Ugly Vegetable Soup.” (CCBC) **For ages 3-6.**

**Green Green: A Community Gardening Story** (2017) by Marie Lamba and Baldev Lamba, illustrated by Sonia Sánchez.

“‘Green green / fresh and clean. Brown brown / dig the ground,’ begins this story as a group of children play in a grassy meadow and tend to a sprawling backyard garden. Soon, though, ‘brown brown / dig the ground’ takes on a less pleasant meaning, as bulldozers and trucks begin clearing the land to make way for new buildings. ... Gardens are reduced to planters on balconies. Then one day, a little girl with a shovel turns the book’s familiar refrain into a question. ... An affirming ‘Brown brown / dig the ground!’ sounds as a diverse group of neighbors gathers in a large lot to remove the litter, till the earth, and plant seeds. The garden they create grows into a colorful, verdant, once-again-sprawling place of beauty in the midst of the city. Sánchez’s illustrations are as vibrant as the community garden that blooms in these pages.” (CCBC) **For ages 3-7.**

**A Seed Grows: My First Look at a Plant’s Life Cycle** (1997) by Pamela Hickman, illustrated by Heather Collins.

“Each of these introductory science books for young children has a cumulative text, e.g. ‘This is the tree that Connie climbs. / This is the leaf that grows on the tree that Connie climbs. / This is the butterfly that landed on the leaf that grows on the tree that Connie climbs.’ On every double-page spread, the left-hand side of the page folds out to give further scientific information, e.g. ‘A leaf has veins, just like you. The lines you see carry food and water inside the leaf.’ The text is clear and simple, and the books can be read aloud as cumulative stories set in the natural world, or as an introduction to easy scientific concepts generally of interest to small children.” (CCBC) **For ages 3-7.**

**Yucky Worms** (2010) by Vivian French, illustrated by Jessica Ahlberg.

“When a child and his grandma dig up a worm while gardening, the boy’s first instinct is to throw it away. ... Grandma seizes the moment to deliver a lesson on the value of earthworms. In a conversational style, she explains worms’ physiology, diets, function as soil aerators and fertilizers, and the dangers they face from predators. ... By the time they move on to the next gardening chore, Grandma has cultivated a newfound respect for worms in her grandson. The pencil and gouache art both illustrates and amplifies the text, with cross-sections offering a worm’s-eye view, while informational tidbits and dialogue bubbles embellish the main storyline.” (CCBC) **For ages 4-8.**

**And Then It’s Spring** (2012) by Julie Fogliano, illustrated by Erin E. Stead.

“A boy plants seeds in late winter’s brown, barren earth and vigilantly watches for green sprouts alongside his companions (a dog, turtle, rabbit and bird). ... [His] elaborate inner world and darling voice reverberate in muted woodblock prints and empathetic pencil illustrations as well, its timbre and tone unchanged. ... Many treasures lie buried within this endearing story, in which humor and anxious anticipation sprout alongside one another. This sweet seedling will undoubtedly take root and thrive.” (Kirkus Reviews, starred review) **For ages 3-8.**

**Rotten Pumpkin** (2013) by David M. Schwartz, photographed by Dwight Kuhn.

“Carving a pumpkin for Halloween is a beloved tradition, but all too soon, that gourd falls prey to a host of scary, gross and unbelievably fascinating creatures. ... The author boldly chooses to give voice

to the various decomposers that visit old Jack. Readers hear from animals, mold, fungi, rot, bacteria and, periodically, from the pumpkin itself. The photographs zoom in for close-ups of the characters in this slightly horrific performance. ... Time and weather play their parts, too. ... A glossary follows, further describing the unfamiliar terms introduced in the text, and a page devoted to “Classroom Investigations” suggests ways to engage in the scientific method and conduct experiments with pumpkins. An ecology lesson, an inspiration for readers’ theater — or a compelling read all on its own.” (Kirkus Reviews)

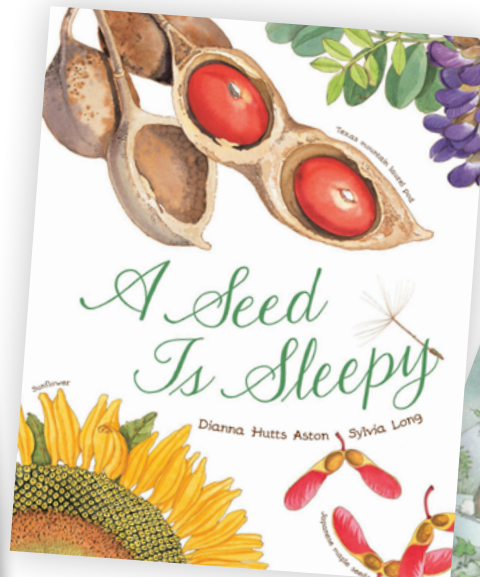
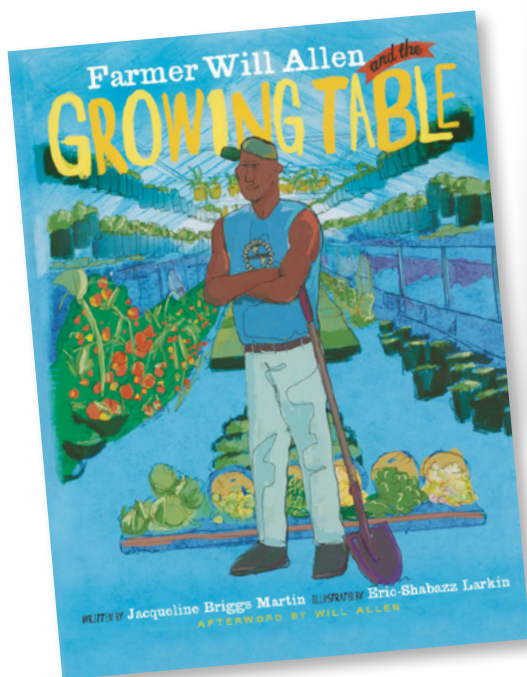
For ages 5-12.

**Farmer Will Allen and the Growing Table** (2013) by Jacqueline Briggs Martin, illustrated by Eric-Shabazz Larkin.

“As a child, Will Allen hated working in his family’s garden. He planned to quit on planting, picking, pulling weeds, leave those Maryland fields for basketball or

white-shirt work.’ It turns out he did both, playing professional basketball in Belgium, then getting ‘white-shirt’ work in Wisconsin. But while helping a Belgian friend dig potatoes during his basketball days, he made a life-changing discovery: he ‘loved digging in the dirt.’ Living in Milwaukee after playing ball, Will noticed how few people, especially in poor neighborhoods, had access to fresh vegetables. He bought an inner city lot that included six greenhouses, got friends to donate fruit and vegetable waste to create compost, added red wiggler worms and figured out — through trial and error, and with hands-on help from neighborhood kids — how to gradually transform the polluted soil to grow healthy food. ... This lively introduction to Will Allen’s groundbreaking work (for which he’s received a MacArthur Foundation “Genius” grant) features a buoyant narrative by Jacqueline Briggs Martin set against Eric-Shabazz Larkin’s energetic illustrations.” (CCBC)

For ages 5-14.



# SING

Use any song you like adapted to the theme of gardening. Here are two suggestions:

## **“We Are Gardeners”**

**TUNE: “FARMER IN THE DELL”**

The farmer sows her seeds. The farmer sows her seeds. Hi Ho the dairy-o,

The farmer sows her seeds.

*other verses:*

The rain begins to fall... The sun begins to shine... The seeds begin to grow...

The plants grow big and tall... The farmer cuts her corn...

And now the harvest is on....

## **“Dig, Dig, Dig the Earth”**

**TUNE: “ROW, ROW, ROW YOUR BOAT”**

Dig, dig, dig the earth.

*(Make digging motion)*

Then you plant your seeds.

*(Pretend to drop seeds)*

A gentle rain

*(Flutter fingers down)*

And bright sunshine

*(Circle arms above head)*

Will help your flowers grow.

*(Hold one arm parallel to ground and move other arm up behind it with fingers extended to represent a flower growing)*



# CRAFT

## PAINTING OR PRINTING WITH PRODUCE

### Supplies needed:

*Paper*

*Fruits and vegetables*

*Skewers (optional)*

*Paint*

*Dish to hold cut fruits and vegetables*

*Dish to hold different colors of paints*

*Container of water for rinsing paint-covered produce before applying a new color*

### Directions:

- ① Prepare dishes of paint.
- ② Cut fruits and vegetables. Different shapes of produce will obviously produce different prints. (Here are some shapes to try: broccoli and cauliflower cut into florets; bok choy or celery cut off the base and use the bottom part of the base to print cut-side down; Brussels sprouts cut into half; potatoes and carrots cut into wedges, halves or other shapes; mushrooms slice in half; corn cut into sections the short way and skewer through the middle for rolling prints; apples, pears, oranges and lemons cut in half, blot excess juices; bell peppers cut in half and remove seeds.)
- ③ Have the children dip the produce item of their choice into the paint of their choice and apply it to the paper. Smaller children may choose to use the produce as brushes, and older ones may choose to print with a stamping motion instead.
- ④ Rinse paint off before applying a new color to the fruit or vegetable.

Project sources:

[go.wisc.edu/8ahco0](http://go.wisc.edu/8ahco0)

[go.wisc.edu/0x9i7p](http://go.wisc.edu/0x9i7p)

# CRAFT

## MAKE A VEGGIE/FRUIT MOBILE

Note: This is a project for older children.

### Supplies needed per mobile:

*Felt — red, green, brown, orange and purple*

*String*

*2 Bamboo stakes (approximately 15-24 inches long)*

*1 Paperclip*

*Templates (following pages)*

### Directions:

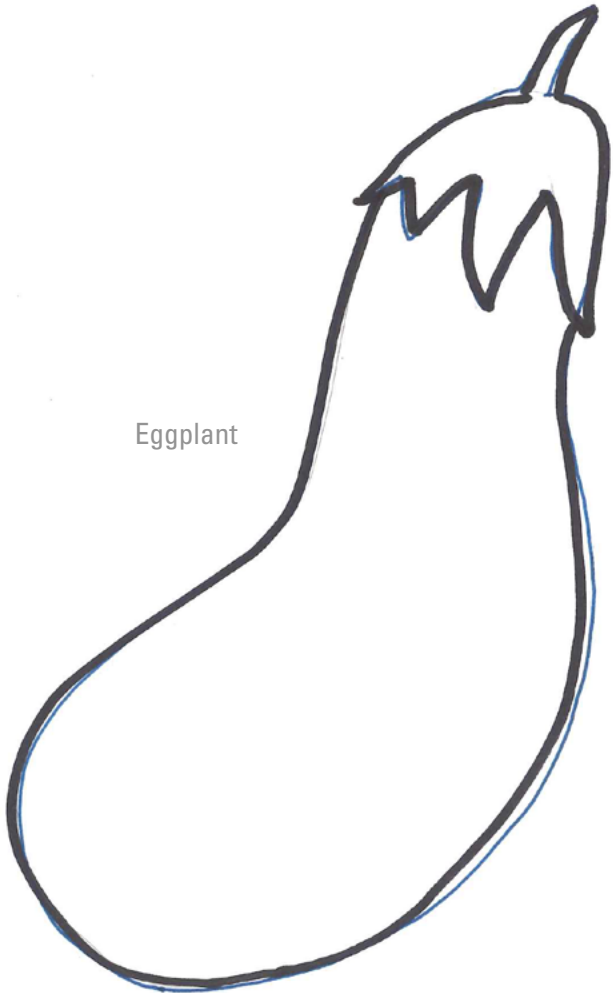
- ① Print the templates.
- ② Cut shapes out of felt according to the template. For vegetables and fruits with a different-colored top, cut the entire shape in the main color and then cut the smaller top shape from the different color. Note that the corn has a separate yellow shape for the corn kernels.
- ③ Glue the tops and corn kernel sections on to the appropriate shapes.
- ④ Using the sharp end of the paperclip, puncture a small hole at the top of each produce shape.
- ⑤ Assemble the top bars of the mobile by tying them together in the shape of a plus sign.
- ⑥ Thread a length of string through each of the shapes and knot the end by the shape. (Start with lengths of string of about 20 inches.)
- ⑦ Tie each string with shape attached to the top bars. Wrap the string around the top bars as much as you like for variation in height.
- ⑧ Tie a length of string to the top center. Open up the paperclip into a hanging hook.



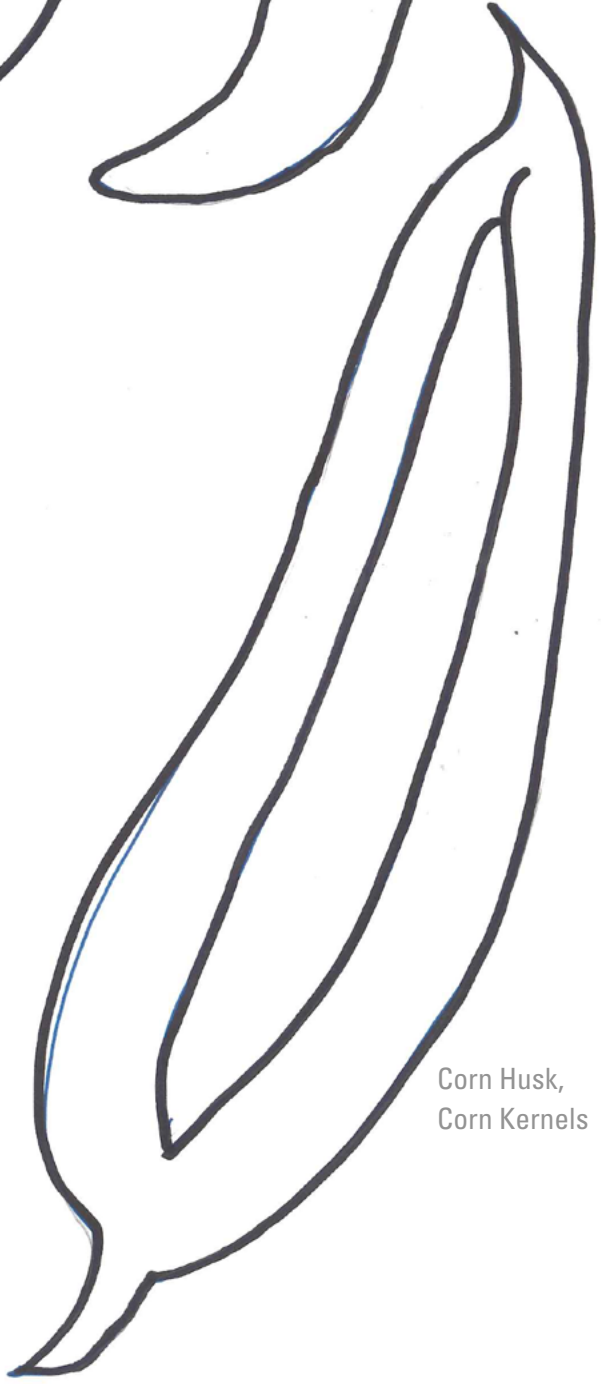
Tomato



Red Pepper

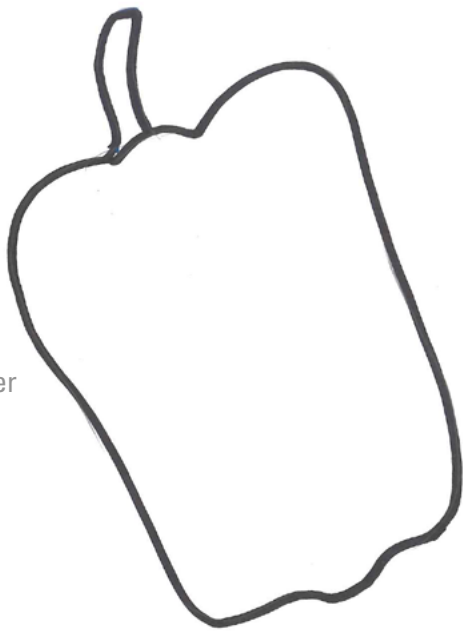


Eggplant



Corn Husk,  
Corn Kernels

Bell Pepper



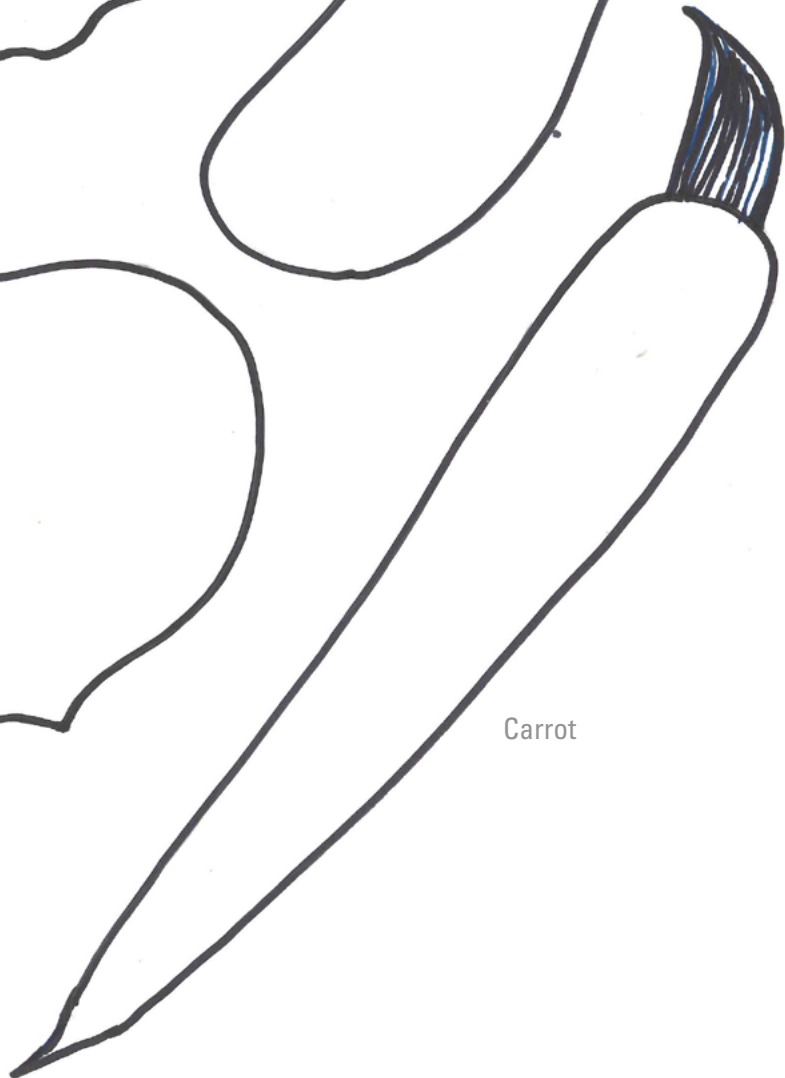
Green Pepper



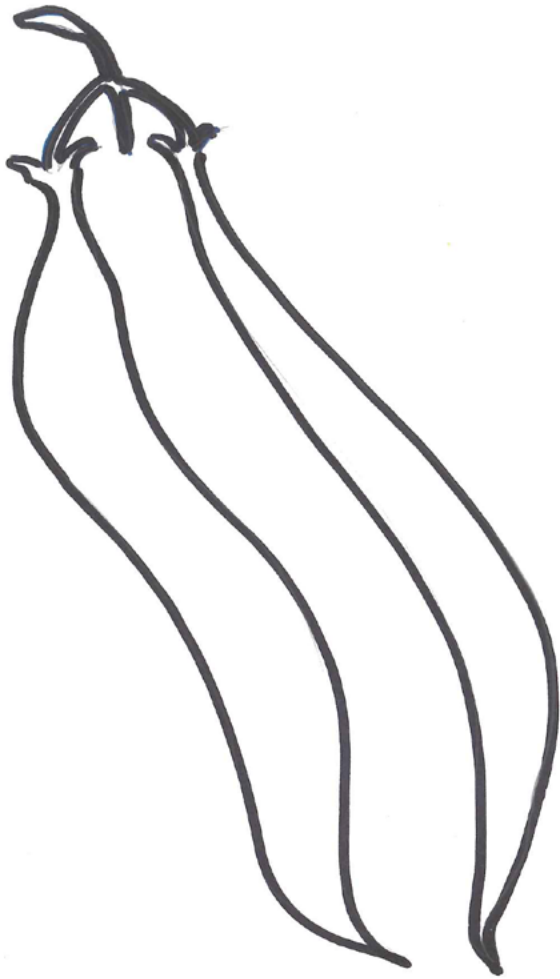
Onion



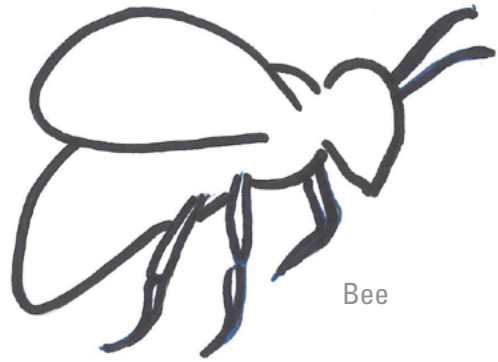
Carrot



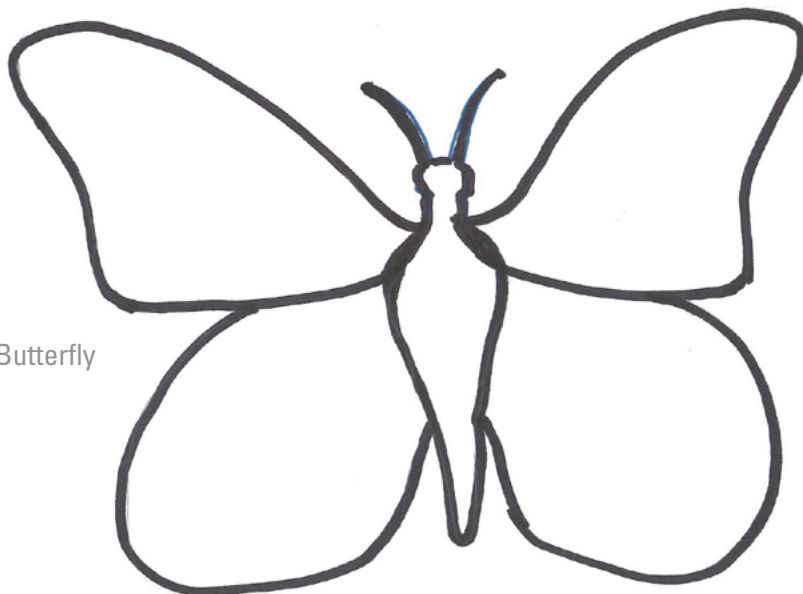
Beans



Bee



Butterfly

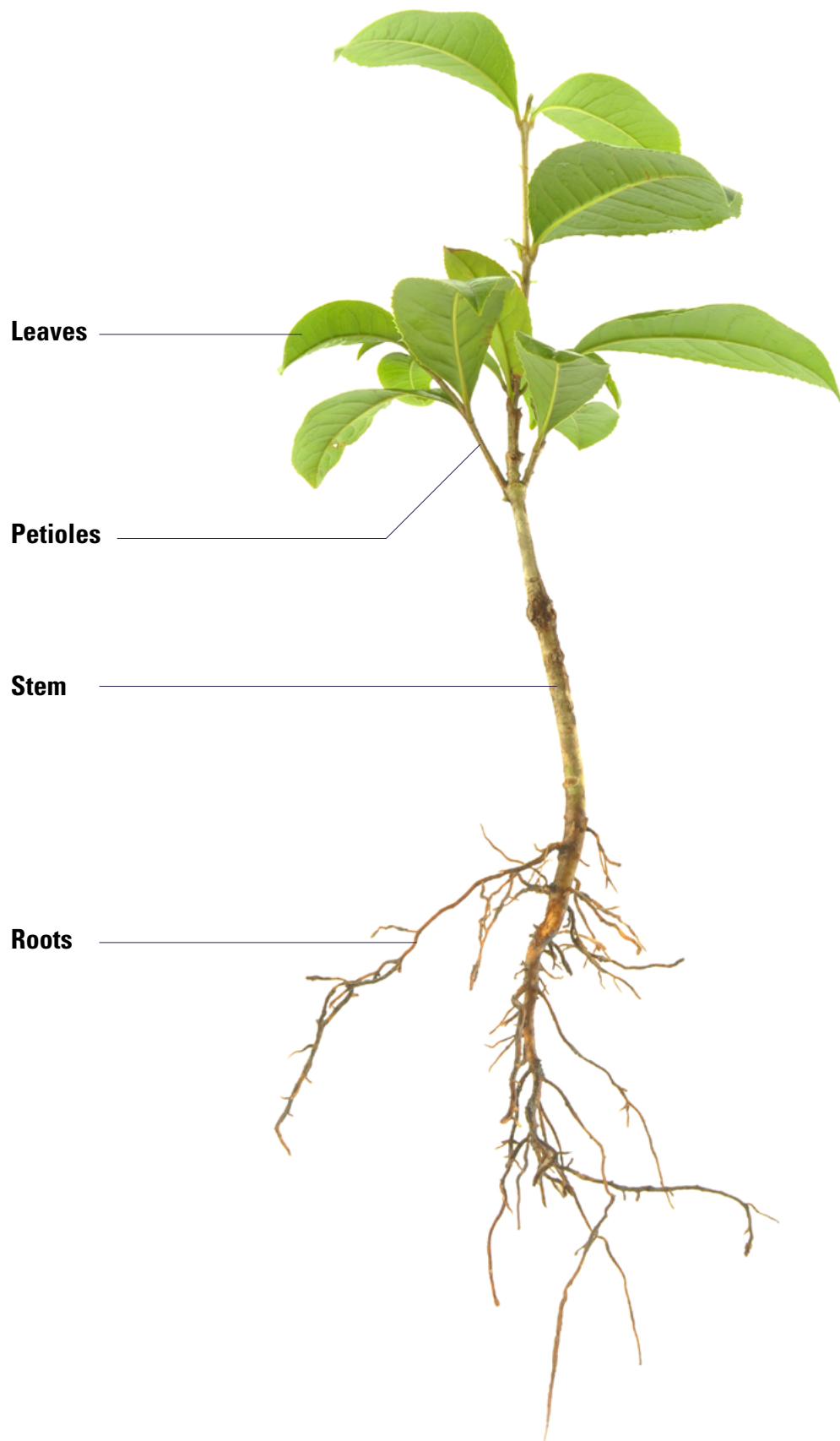


Earthworm





## PARTS OF A PLANT



**Flowers**



**Seeds and seedlings**







**Roots**

*Carrots, beets*

**The root** is the part of the plant that grows in the ground. It anchors the plant in the soil and absorbs water and minerals. Carrots and beets are taproots, which are single long roots.



**Stems**

*Asparagus, onions and potatoes (modified stems)*

**The stem** is the part of the plant that transports water and nutrients to the entire plant. The stem holds up the rest of the plant. Asparagus is an example of a stem that we eat. Even though onions and potatoes are grown underground, they are modified stems used for storage.



**Leaves**

*Lettuce, spinach, cabbage, mustard greens*

**Leaves** are the parts of the plant that collect sunlight and turn it into food for the plant. Some leaves of plants that we eat are lettuce, spinach, cabbage and mustard greens. Even though celery looks like it would be a stem, it is actually part of the leaf called the “leaf petiole.”



**Flowers**  
*Broccoli*

**Flowers** are the parts of the plant that produce the seed for future plants after they have been pollinated. When we eat broccoli, we are eating unopened flower buds.



**Fruits**  
*Tomato, apple, peach, blueberries*

**Fruits** are containers for seeds. Some fruits that we eat are tomatoes, apples, peaches and blueberries.



**Seeds**  
*Lima beans, peas, sunflower seeds*

**Seeds** will grow into new plants after the fruit ripens and falls to the ground or is distributed by animals that have eaten the fruit. If the seeds are exposed to the right conditions, they will sprout and grow into new plants. Some seeds of plants that we eat are peas, beans, nuts, corn and grains (such as wheat, barley and oats). Corn and nuts are also fruits. Nuts are encased in a hard shell that makes them a fruit. Corn is fruit because the ovary wall and the seed coat are fused into one layer.

# LEARN MORE ABOUT

## GARDENING

PBS Gardening with Kids:

[pbs.org/parents/thrive/gardening-with-kids-how-it-affects-your-childs-brain-body-and-soul](https://pbs.org/parents/thrive/gardening-with-kids-how-it-affects-your-childs-brain-body-and-soul)

Growing Plants Sid the Science Kid (PBS video):

[pbskids.org/video/sid-science-kid/1568868836](https://pbskids.org/video/sid-science-kid/1568868836)

PBS Maya and Miguel: [pbskids.org/video/maya-miguel/1341080887](https://pbskids.org/video/maya-miguel/1341080887)

Nature Cat: [pbskids.org/naturecat/about/characters/nature-cat](https://pbskids.org/naturecat/about/characters/nature-cat)

Nature Cat “Let’s Sprout a Bean Seed” activity (downloadable PDF):

[cms-tc.pbskids.org/global/garden-corner.pdf?mtime=20170511174544](https://cms-tc.pbskids.org/global/garden-corner.pdf?mtime=20170511174544)

Nature Cat “Make a Composter” activity (downloadable PDF):

[cms-tc.pbskids.org/global/composter-1.pdf?mtime=20170511174702](https://cms-tc.pbskids.org/global/composter-1.pdf?mtime=20170511174702)

Kids Gardening, “a leader in the school gardening movement since 1982” provides educational resources, curricula, guides, and grants for youth and school garden programs: [kidsgardening.org](https://kidsgardening.org)

Kids Gardening activities, projects, and crafts: [kidsgardening.org/garden-activities](https://kidsgardening.org/garden-activities)

PBS LearningMedia Wisconsin includes interactives, video clips, lesson plans on life sciences and other subjects (can be filtered by subject area, grade, and type of media):

[wpt.pbslearningmedia.org/subjects/science/life-science/?selected\\_facet=grades:PreK](https://wpt.pbslearningmedia.org/subjects/science/life-science/?selected_facet=grades:PreK)

PBS LearningMedia Wisconsin – Nature Cat/DIY/Daisy’s Garden Corner:

[wpt.pbslearningmedia.org/resource/naturecat\\_diy\\_garden\\_corner/nature-cat-diy-daisys-garden-corner](https://wpt.pbslearningmedia.org/resource/naturecat_diy_garden_corner/nature-cat-diy-daisys-garden-corner)

American Horticultural Society Youth Gardening page which includes links to resources for educators, a youth gardening gazette, and award winning garden-themed books for children: [ahsgardening.org/gardening-programs/youth-gardening](https://ahsgardening.org/gardening-programs/youth-gardening)

Wisconsin School Garden Network works to “improve children’s health and wellbeing through garden based education;” its site includes a searchable library” of gardening nuts-and-bolts tips, resources, curricula, and links to educational sites: [wischoolgardens.org](https://wischoolgardens.org)

Wisconsin 4-H Division of Extension, UW-Madison (with map to locate a 4-H near you):

[4h.extension.wisc.edu](https://4h.extension.wisc.edu)

# SCIENTIFIC METHOD



## A SCIENTIST IS SOMEONE WHO...

- Observes and wonders
- Asks questions
- Listens to ideas of others
- Conducts experiments
- Shares their ideas and discoveries
- Explores the world around them
- Uses tools to solve problems

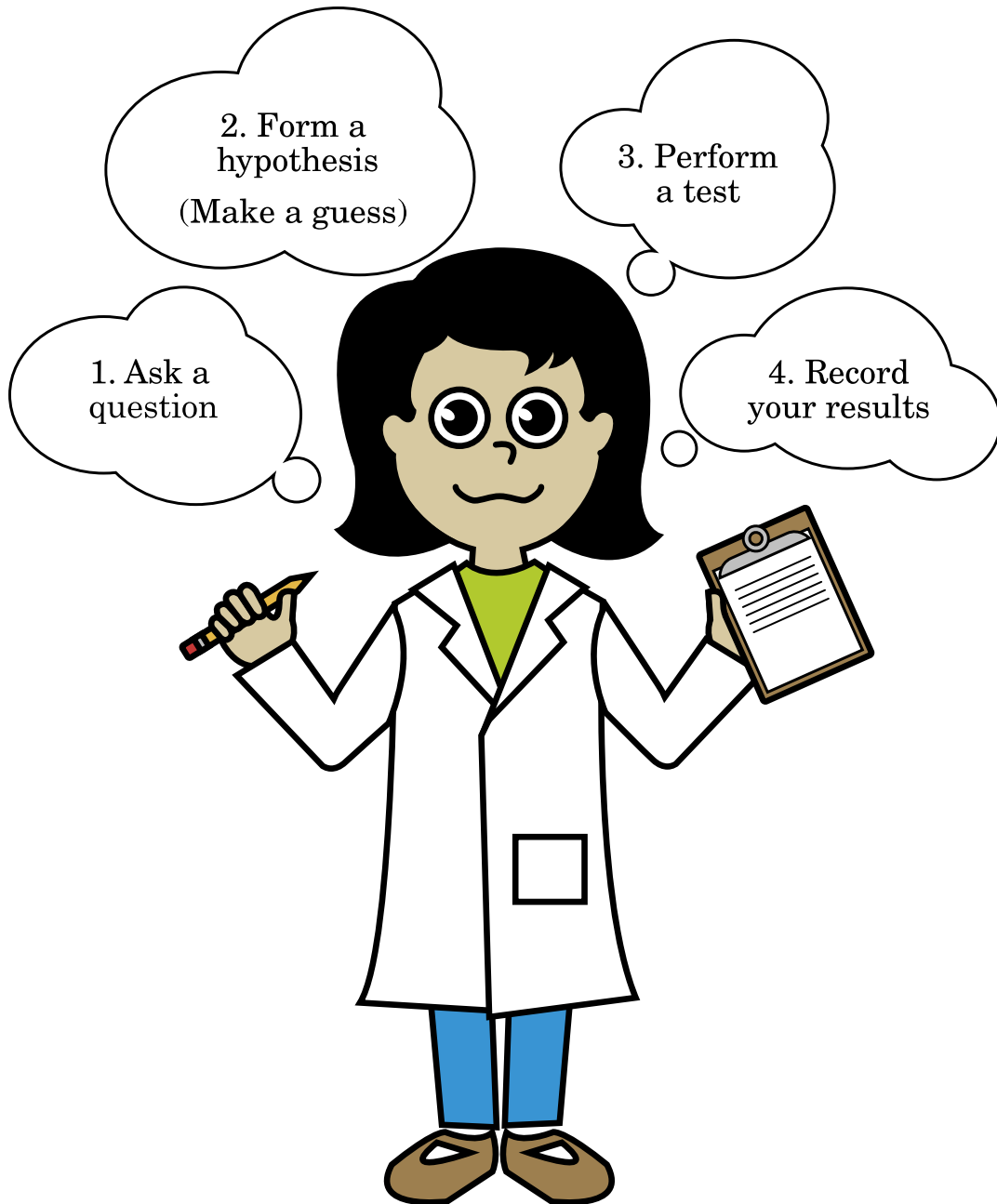
## A SCIENTISTS SAYS...

- I agree with you because...
- I disagree with you because...
- Why do you think that?
- So, what you're saying is...
- Can you tell me more?
- Can you give me an example?
- How could we test that?
- That reminds me of...



# SCIENTIFIC METHOD

THINK LIKE A SCIENTIST



Publication number: WISCU-E-20-002

This work was funded by the University of Wisconsin Sea Grant Institute under grants from the National Sea Grant College Program, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, and from the State of Wisconsin. Federal grant number NA180AR4170097, project number C/C-1.