# The Comic Book Guide to Growing Food Toolkit Activities

This toolkit is designed for use by teachers, librarians, after-school advisors, and parents to enhance learning moments with children in grades 6–12.

The Longwood Gardens Community Read is a program designed to encourage reading for pleasure and start a conversation. Focusing on literature about gardens, plants, and the natural world, we feature an exceptional book annually (paired with a similarly themed younger readers' book or books) through a variety of programs, discussions, and lectures across all community partner organizations. We are celebrating the 10th year of our Community Read with an exploration of food—its role as connector of people, and its relationship to the world of plants and gardening. With its commitment to exploring nature and diverse human themes in relation to the natural world, we have chosen *Black Food: Stories, Art, and Recipes from Across the African Diaspora* (Bryant Terry, editor) as our adult Community Read title. Our middle grades title is *The Comic Book Guide to Growing Food* (by Joseph Tychonievich, illustrated by Liz Anna Kozik). Our title for ages 4–7 is *Bring Me Some Apples and I'll Make You a Pie: A Story About Edna Lewis* (by Robbin Gourley), in which the childhood roots of a revered African American chef's appreciation for the bounties of nature are explored through the seasons.

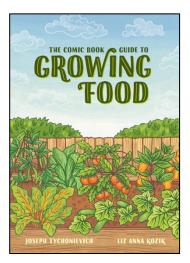
For more information about the Community Read, go to longwoodgardens.org/community-read.





# *The Comic Book Guide to Growing Food* by Joseph Tychonievich Art, Colors, and Letters by Liz Anna Kozik

#### **Overview and Synopsis**



The first graphic novel guide to growing a successful vegetable garden, from planning, prepping, and planting, to troubleshooting, care, and harvesting.

Like having your own personal gardening mentor at your side, *The Comic Book Guide to Growing Food* is the story of Mia, an eager young professional who wants to grow her own vegetables but doesn't know where to start, and George, her retired neighbor who loves gardening and walks her through each step of the process. Throughout the book, "cheat sheets" sum up George's key facts and techniques, providing a handy quick reference for anyone starting their first vegetable garden, including how to find the best location, which vegetables are easiest to grow, how to pick out the

healthiest plants at the store, when (and when not) to water, protecting your plants from pests, building a raised bed, and what to do with extra produce.

#### Activities

- What Will Your Garden Grow?
- My Garden Diorama
- Window Farming: Regrowing Vegetables





> Community Read March–May 2023

#### Extend the Story

- Additional Activities
- Project Learning Tree
- Every Kid Outdoors

This toolkit was developed by the Longwood Gardens School and Youth team.

#### Activities meet the following Next Generation Science Standards:

#### MS-LS1-1

Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.

#### MS-LS2-1

Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

#### MS-LS2-3

Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

#### HS-ESS2-5

Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes.





#### What Will Your Garden Grow?

#### Materials Needed

- Pencils, pens, crayons, or Markers
- One copy of Planning a Garden Dichotomous Key / student
- One copy of Planning a Raised Garden Bed Activity Worksheet / student
- One copy of Planning an Indoor Container Garden Activity Worksheet / student
- The Comic Book Guide to Growing Food

#### Directions

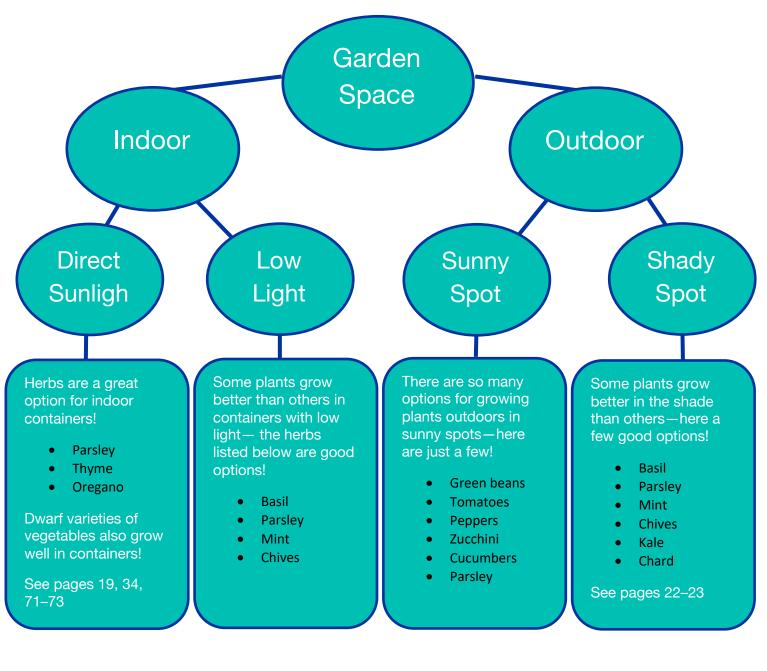
- After reading *The Comic Book Guide to Growing Food,* students can use the tips and tricks they have learned to design their own garden space.
- Have students use the dichotomous key to identify what type of garden space they would like to plan out and what plants would best suit that space.
- Allow students time to sketch out their garden spaces using the raised bed and indoor container garden worksheet pages. Encourage students to use a combination of drawing and writing as they plan out their gardens, referencing *The Comic Book Guide to Growing Food* book as needed.





> Community Read March–May 2023

### Planning a Garden – Dichotomous Key

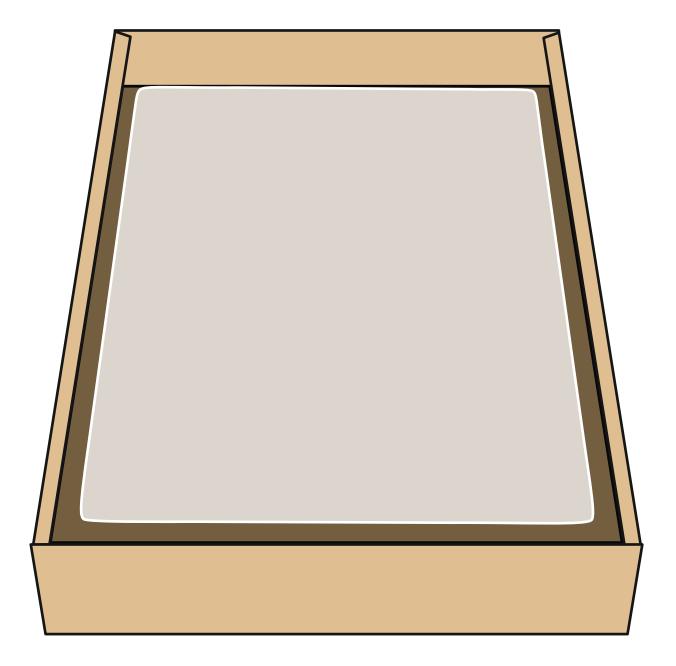






> Community Read March–May 2023

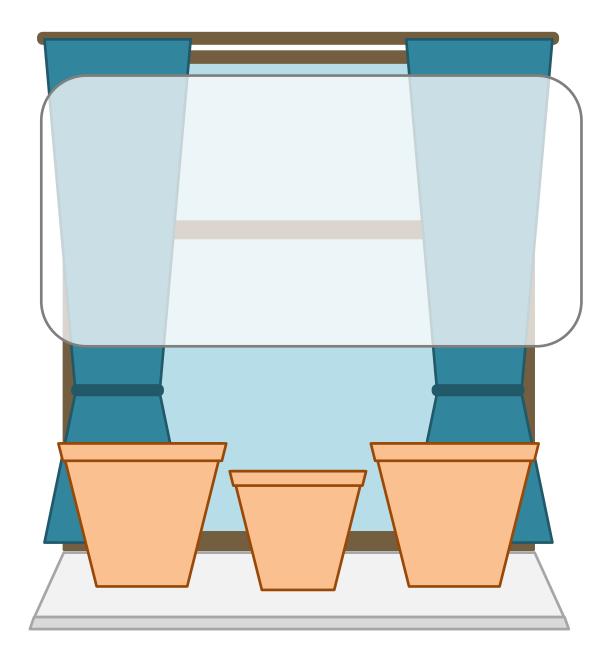
## Planning a Raised Garden Bed





> Community Read March–May 2023

# Planning an Indoor Container Garden





> Community Read March–May 2023

### My Garden Diorama

#### **Materials Needed**

- One shoebox with lid / student
- Glue or tape
- Construction paper
- Scissors
- Crayons or markers
- Scrap material, cotton balls, modeling clay, and other craft materials
- Recycled or natural materials collected from outdoors

#### Directions

Preparing the Box

Have the students prepare the box by placing the lid on the side of the box. This will become the base for the garden diorama.









Students cut and glue a piece of green construction paper to cover the base of the diorama. This green paper will become the grass. Students may want to add more green paper to cover the bottom half of the inside of the box.



Students then cut and glue blue construction paper to cover the top half of the inside of the box. This blue will become the sky in the diorama.



#### Creating a Dream Garden

Students can glue cotton ball clouds to the blue sky or add a sun cut out of yellow construction paper.

Allow students to get creative using the other craft, natural, and recycled materials available.





Ask students to think about the garden of their dreams. Ask what would be planted in the garden? Encourage students to think about how to create those things out of the available craft, natural or recycled materials.

Here are some ideas students may want to add to the garden diorama.

- 1. Use brown modeling clay to create a garden bed. Add vegetables in the garden bed made with other colors of clay. Orange carrots, red radishes, green cucumbers, yellow squash, red tomatoes or orange pumpkins are good choices.
- 2. Use tiny sticks found outside to create a fence around the garden.
- 3. Add toothpicks to the back of your paper designs to make them stand upright.
- 4. Roll a piece of brown construction paper into a tube to create the base of a tree. Then add green leaves.
- 5. Use real flower petals to create flowers in your dream garden.
- 6. Think about wildlife that might visit the garden. Birds, bees, squirrels, and groundhogs love to visit gardens. Be creative!
- 7. Add people to the garden.
- Have students create a name for their dream garden.
- Find a place to display the garden dioramas for others to enjoy.





Community Read March–May 2023

### Window Farming: Regrowing Vegetables

#### Materials Needed

- Clear glass cups
- Cutting board
- One copy of Growth Tracker / student
- Knife
- Toothpicks
- Vegetables (romaine lettuce, celery, carrots, garlic, potatoes)
- Water
- Optional: seeds, soil, pots

#### Directions

- Have students choose which vegetable group they want to be part of.
- Ask students to follow the directions below depending on which vegetable group they are part of.
- After students have completed, ask them to watch their vegetable daily and record any changes on their growth tracker.
- Have students make predictions on which vegetable regenerates the fastest, grows in the soil the quickest, etc.
- Students can also conduct further experiments by collecting seeds from various fruits (avocados, kiwis, apples, oranges, etc). After drying the seeds, they can be planted in the soil and observed to see which seeds grow.





#### **Romaine Lettuce**

- Place a head of romaine lettuce on a cutting board.
- Cut the lettuce about 3 inches from the base. Wash the leaves and create a tasty salad snack.
- Take the cut base and place it in a glass cup.
- Add 2 inches of water.
- Place the cup in a sunny window.
- In a few days, new leaves of lettuce should start growing from the base.
- Every few days, refresh the water in the cup.
- Once the leaves are large enough, the romaine lettuce base can be planted in soil if desired. Leaves should be above the soil. Pick the new leaves and enjoy another salad!

#### Celery

- Place the celery on a cutting board
- Cut all the stalks from the celery.
- Take the cut base and place it in a glass cup.
- Add 2 inches of water.
- Place the cup in a sunny window.
- In a few days, new leaves should start growing from the base. The leaves will thicken over time.
- Every few days, refresh the water in the cup.
- Once the leaves are large enough, the celery base can be planted in soil if desired. Leaves should be above the soil.





#### Carrots (or turnips, beets, radishes, parsnips, green onions, or scallions)

- Place the carrot on a cutting board
- Cut the carrot about 1 inch from the base.
- Take the cut base and place it in a glass cup.
- Add water to cover half of the carrot base.
- Place the cup in a sunny window.
- Every few days, refresh the water in the cup.
- Once the leaves are growing, the carrot base can be planted in soil if desired. Leaves should be above the soil. The leaves of the plant are edible and can be used in a salad.

#### Garlic

- Take one clove of garlic from the bulb.
- Place the clove in a glass cup.
- Add just enough water to cover the base of the clove.
- Place the cup in a sunny window.
- Every few days, refresh the water in the cup.
- Once the sprout is growing, the garlic can be planted in soil if desired. Sprout should be above the soil.

#### Potatoes (or sweet potatoes)

• Find a potato that has eyes or small growths on the skin of the potato.





- Carefully place three toothpicks about 2 inches down from the top of the potato, spaced evenly apart.
- Place the potato in a glass cup with the larger end down. The toothpicks should hold the potato in place.
- Add water to the glass making sure the eyes of the potato are in the water.
- Place the cup in a sunny window.
- Every few days, refresh the water in the cup.
- Once enough roots are observed, the potato can be planted in soil if desired. The potato and roots should be fully covered with soil.





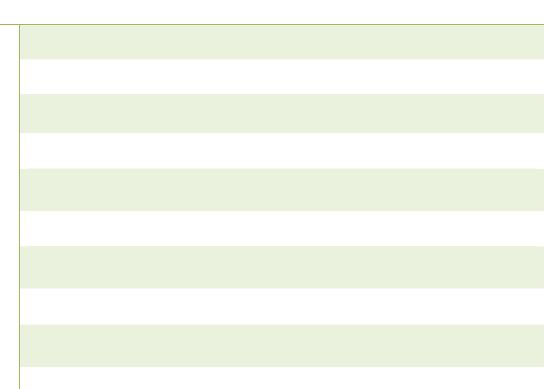
> Community Read March–May 2023

### **Growth Tracker**

Vegetable: \_\_\_\_\_

Date

**Observations** 







### **Extend the Story**

#### **Additional Activities**

- Community Read STEAM Challenge. Students in grades 6-12 can participate in the Community Read STEAM Challenge "Food Truck Tales". Applications are due February 10, 2023 at 5pm EST. Sign up to receive the application at: longwoodgardens.org/education/k-12-programs/steam-challenge
- What Do Plants Like to Drink? Conduct an experiment to determine what might happen if a plant was watered with salt water or soda. longwoodgardens.org/sites/default/files/wysiwyg/ed activity plant drinks.pdf
- *Make Your Own Holiday Wrapping Paper.* Have fun creating your own wrapping paper to cover your gifts this year using vegetables from your kitchen and other natural materials. <u>longwoodgardens.org/sites/default/files/wysiwyg/ed\_holiday\_giftwrapfinal.pdf</u>
- *Design Your Own Miniature Garden*. Design and make a miniature garden in a tray. <u>/longwoodgardens.org/sites/default/files/wysiwyg/ed\_mini\_garden.pdf</u>

#### **Kids Gardening**

 Kids Gardening supports educators and caregivers that bring the life-changing benefits of gardening to kids. Their website offers lesson plans, activities, and grants to get kids gardening. <u>kidsgardening.org/</u>



