EDUCATOR GUIDE

From the hills of Kenya to the islands of Japan, the concrete jungle of L.A. to the Florida Everglades, the planet protectors in this exhibit have tended and defended plants around the world.

We have them to thank for the green oases in inner cities, preservation of ecosystems, and so much more.

Twenty local artists created original portraits honoring the stories of these horticultural heroes, past and present, near and far, famous and unknown.

Every garden starts with a single seed. We hope this exhibit will inspire you to be a horticultural hero for your community and in your classroom.
OVERVIEW
Thank you for downloading our Horticultural Heroes lesson plan. This lesson plan accompanies the Horticultural Heroes exhibit on display in the Tower Hill Botanic Garden Library. These materials will introduce your students to heroes from the world of Horticulture; their struggles, victories, scientific advancements, and more. The activities and discussion questions on the following pages can be adapted for grades K through 12.

Each horticultural hero has a unique story. Pick a few to highlight or study all twenty. Each hero page features a short bio, pictures, original artwork, and the artist’s story. This exhibit companion guide serves to help students understand the significance of horticulture in our daily lives and make classroom connections between science, literacy, and art.

LEARNING OBJECTIVES
Students will be able to:

- Identify current and historical horticultural advancements
- Understand ways in which artists draw upon nature as a source of inspiration
- Communicate ways they can make a difference in their communities

RECOMMENDED BOOKS

Grades K-5

- Wangari’s Trees of Peace by Jeanette Winter
- Seed by Seed by Esme Raji Codell
- In the Garden with Dr. Carver by Susan Grigsby
- Rachel: The Story of Rachel Carson by Amy Ehrlich
- The Lorax by Dr. Seuss
- First Garden: The White House Garden and How It Grew by Robbin Gourley

Grades 6-12

- Silent Spring by Rachel Carson
- The Food Explorer by Daniel Stone
- Walden by Henry David Thoreau
- Unbowed: A Memoir by Wangari Maathai
- The Plant Messiah by Carlos Magdalena
- The Color of Food by Natasha Bowens
- American Grown by Michelle Obama

RECOMMENDED FILMS

- A Man Named Pearl
- Taking Root: The Vision of Wangari Maathai
- The Lorax
ACTIVITY

Materials: Paper, Pencils, Crayons, Markers

Subject Areas: English Language Arts, Visual Arts, Science

In groups, independently or as a class, read the ‘About the Artist’ section of each featured hero or choose a few to highlight. Discuss some qualities of heroes that are familiar to students. Brainstorm how these heroes treat people and the environment. Lead a discussion, journaling activity or project focused on the achievements and qualities that make someone a hero. As an extension assign supplemental reading materials or use videos to further study a particular hero.

Have students turn and talk to a peer about how each artist or an artist of their choosing incorporated elements from nature and from the lives of their subject to inspire their design. Have students do research to identify other horticultural heroes throughout history or use a person from their lives to inspire and create their own original art piece. Encourage students to use elements from nature and characteristics or achievements of their hero of choice to create an original piece of art, comic, short story, poem or haiku. Leave the project open ended to allow for the incorporation of a variety of mediums and techniques. As a literary extension have students write their own artist statements detailing their process and the inspiration behind their design or story.

DISCUSSION QUESTIONS

• Take a moment to look closely at the artists’ portrayals of each hero. Take inventory of what you notice. How did they incorporate details of their subjects’ achievements and personalities into their artwork?

• What details in the artists’ work may have been inspired by nature?

• Compare and contrast two or more portraits. How is the medium the artist used similar or different?

• Think about the environmental challenges in your community. How could you make a difference?

Share your students’ work by emailing youtheducation@towerhillbg.org or postmarking an envelope to 11 French Drive, Boylston, MA 01505.
HOW CAN YOU BE A HORTICULTURAL HERO?

PLANT A GARDEN
Designing a school or home garden is easier than you might think and creates a great outdoor classroom. Students are able to steward their garden and feel empowered to make a differences in their school and communities. Even if outdoor space is limited, container gardening is great for indoor classrooms. Organizations such as Kids Gardening (kidsgardening.org) provide a variety of resources and tips for helping you plan and maintain your school garden.

PICK UP LITTER
Coordinating a schoolyard or community cleanup can be an excellent tool to engage students in making a difference and can be educational as well. Incorporate activities such as graphing, journaling and art to supplement your schoolwide cleanup. Even picking up small amounts of trash can make a big difference.

PLANT A TREE
Trees and plants are necessary for all life on earth. Tower Hill’s Worcester Tree Initiative will partner with your school to educate students and bring life to school campuses. Contact Worcester Tree Initiative (towerhillbg.org/worcester-tree-initiative) to coordinate a tree planting at your school!

REDUCE, REUSE, RECYCLE
Waste and how we use it greatly affects the health of our environment. Empower your students to reduce their ecological footprint by reducing, reusing, and recycling at home and school. Organize recycling initiatives or set up a composting bin in your classroom to reduce food waste. Vermicomposting is a great way to use garbage to grow your school garden!

ADDITIONAL RESOURCES
- Plant Heroes (plantheories.org)
- Kids Gardening (kidsgardening.org)
- GrowVeg (growveg.com)
GEORGE WASHINGTON CARVER
(1864-1943)
Portraitt by DONNA BERGER

ABOUT THE HERO
George Washington Carver spent his life creating simple and accessible tools for agriculture. As a young man, he was rejected by multiple colleges because of his race so he spent his early adulthood farming. Eventually he was able to attend college and graduated with a Master’s in Agriculture. Carver taught farmers which crops would suit their land and how to rotate crops to make the nutrients in the soil last longer. Although he is known for creating over 300 uses for the peanut, he also researched many other crops including sweet potatoes and soybeans. Carver developed many programs for farmers to learn sustainable farming and spread and practiced his research across the South.

ARTIST STATEMENT
When researching George Washington Carver’s background, I searched for visual elements to help tell his story. I portray Carver as a distinguished man in a formal seated pose. The wallpaper showcases Carver’s use of peanuts, soybeans, and sweet potatoes for crop rotation. I show Carver holding Queen Anne’s Lace because he liked to cook with edible wild botanicals. Carver was also a skilled artist; this is why the painter’s palette and brushes are placed on the small wood table.
KAREN WASHINGTON
Portrait by MAYA ALLEGRO

ABOUT THE HERO

Born and raised in New York, Karen Washington is dedicating her time to bringing fresh food to cities. Washington worked to start a community garden right next to her house. What was once an empty lot, full of trash, is now called The Garden of Happiness. She is working with multiple community groups to reach as many people as she can. Washington’s mission is for everyone to have fresh food, especially those who have not had access before. Washington is determined to encourage communities to enable people of color to have access to farmers markets, community gardens, and fresh food.

ARTIST STATEMENT

In one interview Washington said, “When I bit into the first tomato I ever grew … I thought, this is what a tomato is supposed to taste like.” I painted her in the Garden of Happiness with a table full of heirloom tomatoes, holding out a tomato. This is a parallel of her work, which includes making fresh produce more accessible for her community. Women of color have to work twice as hard to be recognized, which feeds into the stereotype that women must always be strong and hardworking. To challenge that stereotype, I portrayed her in a quiet moment, as if she is taking time to enjoy and share the fruits of her labor.
KATIE STAGLIANO  
(b. 1999)  
Portrait by ROBEA NORDMAN

ABOUT THE HERO
Katie started her first garden in 2008, when she was in third grade. All of the vegetables that she grew that year were given to a local food pantry. She has been donating everything that she grows ever since. Wanting to do more for her community, she started the Katie’s Krops program. Katie’s Krops offers yearly scholarships to encourage children to start their own gardens. All of the people who Katie’s Krops helps by providing funding donate their vegetables to food pantries. In 2018, Katie’s Krops donated over 38,000 pounds of produce.

ARTIST STATEMENT
I wanted to capture Katie’s youth and joy with soft colors for her skin tone. I tried to use mostly gardening and food magazines to create a connection to her mission. The background of my portrait is lush, growing and blossoming, much like her gardens and her mission. The goal of my collage work is not only to capture the likeness of a person, but to also capture an interior likeness. I think a collage is a great reflection of how we are all constructed—many little things that make us unique, and who we are.
Maria Moreira has been mentoring farmers for over 30 years. After being asked to use her farm by a family of refugees, she slowly opened up the land to other immigrants and refugees. Moreira’s current efforts are through the Flats Mentor Farm program and the World Farmers organization. The farm supports 55 acres of food from other cultures. Today almost 400 immigrant farmers use her land. She has fostered a community of people that are looking to continue their cultural traditions and supports farmers as they grow food for their families and livelihoods.

Artist Statement
I wanted to convey the inspiring character of this woman: her compassion, her intelligence, her generosity. I painted it horizontally to show a small part of the very great contribution she has made, the Flats Mentor Farm. I used vibrant colors, painting directly on the paper with pigments that I would normally mix in the palette first. A WBUR interview with Maria Moreira really struck me. She commented on the fields surrounding her: “Just look at the colors,” she said. “They’re beautiful. Doesn’t this make you feel like the world is OK?”
WANGARI MUTA MAATHAI
(1940-2011)
Portrait by NETTRICE GASKINS

ABOUT THE HERO
Born in Kenya on a small farm, Maathai spent her life in opposition of unjust practices. She is the first African woman to win a Nobel peace prize, which she received for her work in sustainable development. She was the first woman in East and Central African to receive a PhD. She was the head of a grassroots movement, aimed at creating sustainable livelihoods in rural parts of Kenya. Because of her efforts, over 51 million trees have been planted throughout Africa.

ARTIST STATEMENT
My work breaks down boundaries between art forms, at the juncture between traditional and new media, which includes technology images, performance and sound. Currently, my process includes collaboration with artificial intelligence; taking my digital practice into the speculative with visions of many possible scenarios. I use Deep Dream Generator’s algorithm, which is inspired by the human brain. The generator uses stylistic elements of one image to draw the content of another.
ZARA CISCO BROUGH, WHITE FLOWER
(1919-1988)
Portrait by JAMIE ANDRADE

ABOUT THE HERO

Zara Cisco Brough not only worked on saving and protecting Nipmuc reservations, she spent most of her life working to preserve the Nipmuc culture. As the chief of the Hassanamisco Nipmuc tribe in Grafton, MA, Zara Cisco Brough saw that there was need to protect the land. She founded the Hassanamisco Reservation in 1962 as a place to house and display many Native American artifacts. She was passionate about educating people on the traditions of the Hassanamisco Nipmuc and she fought to keep these traditions and stories alive.

ARTIST STATEMENT

To interpret Zara’s regalia from her photos I worked with Wampanoag tribal member Tia Marie Pocknett, Linguist-in-Residence at Wopanaak Language Reclamation Project, to identify the patterns and materials Zara most likely wore. The background was patterns made of white paper floral shapes mounted on wood to not only reference Princess White Flower, but to also evoke a feeling of nature. The Nipmuc insignia is placed behind Zara who stands proud above the viewer. Zara’s form does not take up the full composition, reflecting a belief in a balance between man and nature.
CYTHIA WESTCOTT
(1898-1983)
Portrait by CARRIN CULOTTA

ABOUT THE HERO
More than your average gardener, Cynthia Westcott spent her career in plant pathology, the study of disease, teaching, and caring for gardens around the United States. Westcott traveled to every state collecting specimens of plant pathogens. The United States Agriculture Department called on Westcott to lead an effort in Mobile, Alabama to identify and eradicate diseased azaleas. She discovered two new types of pathogens and was able to save the plants. Westcott was dedicated to helping home gardeners and wrote many books about her experiences to share her knowledge.

ARTIST STATEMENT
I use art to channel my creative focus on natural subjects and to evoke the emotion I feel while experiencing it. Through art I immerse myself in the beauty of nature and the mystery of a moment in time. Cynthia Westcott brought the joy of gardening, and of roses in particular, to many people. She was successful despite being a woman in a field of study dominated by men. She hosted an annual Rose Day celebration for at least thirty-seven years where she would open her garden to the public, give tours, and serve rose cookies.
ABOUT THE HERO

Frederick Law Olmstead was a landscape architect, and worked on planning and designing parks and gardens. He traveled to many cities in the United States and noticed that while wealthy people had large beautiful spaces to gather, poor people had fewer opportunities to experience gardens or parks. To address this issue, Olmstead created parks for everyone, including those who were not rich. Throughout his career, Olmstead worked on many projects that are now national landmarks. People past and present travel from all around the world to see his unique designs.

ARTIST STATEMENT

I have experienced the peace and respite from city life in several of the parts that Frederick Law Olmstead designed. While a recent college graduate, I lived in New York City and spent lots of time in both Central and Prospect Park, appreciating them as oases of nature nestled amongst wide concrete streets. Olmstead’s belief that spending time in a landscape had a restorative effect was something that I connected with when I was living in a big city. My work is inspired by the natural world, seasonal changes, and memories of the past. I am often drawn to painting birds, plants, and landscapes and the subtle changes in appearance through the year.
IBN AL-BAITAR
(1197-1248)

Portrait by JULIE ANGELA THERESA

ABOUT THE HERO

Ibn Al-Baitar was an Islamic pharmacist, botanist, physician, and scientist in Spain during the Middle Ages. He studied the medicinal properties of plants and researched the ways that people could use plants to heal. He looked at all of the complex properties of plants, including their chemistry. Throughout his career, he found that certain plants could benefit humans, but some could hurt as well. He put his experiments and discoveries together in a detailed book that included over 1,000 plants, foods, and drugs. His research is still in use today.

ARTIST STATEMENT

I decided to use a combination of several styles techniques to paint this historical figure. I used a palette knife to texture the background, a Trompe l’Oeil effect for the parchment, a combination of glazes over impasto paint for his figure, while heavily relying on a chiaroscuro light effect emanating from the plant he is studying. The plant is painted in the same technique, establishing a connection between the two. The shadow cast down by the parchment leads to al-Baitar, as he gazes at the foliage, which in turn points up to the parchment, completing the triangle.
JANAKI AMMAL  
(1897-1984)  
Portrait by LISA GRAVES

ABOUT THE HERO

Born in India, Janaki Ammal studied and researched botany, the study of the parts and structure of plants. Working in India, England, and the United States, Ammal was able to learn about many kinds of plants. She was asked to work on reorganizing the system that Indian botanists used to categorize plants. She proposed a new way of understanding the way that we look at plants. She used her research to show the complexity in the natural world. Through her work, Ammal learned to identify many plant species and the characteristics that make them unique.

ARTIST STATEMENT

After reading Dr. Janaki Ammal Edvalath Kakkat’s story, I was moved by the decisions she made as a young woman that informed her life’s work. Dr. Ammal discovered her passion, made incredible sacrifices, and traveled across the globe to dedicate her life to making the world a better place. At an age where most people have decisions made for them, she remained resolute in achieving her dreams. This is why I chose to paint Dr. Ammal as a young woman. I am honored and grateful to be able to share her story through my paintbrush.
JOHN CHAPMAN
(1774-1845)
Portrait by SHARON BAHOSH

ABOUT THE HERO
John Chapman is better known as Johnny Appleseed. Legend has it that he wandered and planted apple trees during his travels, but there is much more to his life than the legend. While traveling around the United States, he educated farmers about apple nurseries and orchards. Many people enjoyed his apples as a crunchy snack and as a cider. By the end of his life, he owned and cared for 1,200 acres of land. Over the centuries the legend of Johnny Appleseed lives on and the knowledge he spread about his apple trees is still with us today.

ARTIST STATEMENT
I used perhaps the only known picture of John Chapman as reference and made it my own beginning by designing a nearly 3/4 view instead of front facing. I have imagined him in an orchard, perhaps revisiting one he himself planted many years prior. He has colored the hills and open fields by scattering apple seeds and tutoring 1800’s Midwest settlers along the way. Born in Leominster, MA in 1774, Chapman is known for his eccentricities such as walking barefoot and trading clothes for apple seeds. That compelled me to add the caricature by a genius, unknown artist, to the painting. It added the exclamation point to my portrait!!!
MARIAN COFFIN
(1876-1957)
Portrait by FLEUR THESMAR

ABOUT THE HERO
Marian Coffin was one of the first women in the United States to become a landscape designer. She studied landscape architecture at MIT, one of only four women in a class of 500. Born into a wealthy family, Coffin defied her parents’ desire for her to marry and found a career to support herself instead. After finishing her degree, she used her social connections to find work designing at large estates. She designed over 130 gardens. A few are still preserved today and are dedicated to her memory. Coffin continued to work until she died at the age of 80.

ARTIST STATEMENT
I represented Marian Coffin in a huge garden inspired by Winterthur, one of the gardens created by Marian. This overwhelming background serves different purposes: to underline the ambition of her designs, her strong choice of colors, and her work with trees, but also to recreate the fashion of her time through the Impressionist, Art Nouveau and Nabi movements’ patterns. She is the creator of a ‘closed garden,’ a paradise which is depicted here. At her right is one of her famous water pools.
MARJORY STONEMAN DOUGLAS
(1890-1998)
Portrait by TRISHA DANFORTH

ABOUT THE HERO
Marjory Stoneman Douglas spent her life advocating for Florida’s everglades. An author and a journalist, she worked with environmentalists from around the United States to fight for the everglades to become protected land. Douglas founded the organization Friends of the Everglades, which fought to protect and restrict development in these ecosystems. It is still in existence today. Marjory Stoneman Douglas lived to be 108 years old. Through her fifty years of activism, she became the most well known advocate of one of Florida’s most treasure ecosystems.

ARTIST STATEMENT
For the past ten years my work has taken on vastly different shapes: from painting to charcoal, printmaking to cyanotype, or photo collages to embroidery. I often use techniques that are experimental and exploratory. I find solace in telling the story of unsaid coincidences. In exploring the tradition of portraiture, I am inspired by the life that the story of someone breathes into a piece. In creating this portrait I was struck by the affect that someone can have on the world.
MICHELLE OBAMA
(b. 1964)
Portrait by ELIZABETH KOAH

ABOUT THE HERO
Using her influence to help others, Michelle Obama encourages families, schools, and community leaders to start gardening. While living in the White House as the First Lady of the United States, she invited children to join her in taking care of the vegetable on site. Stepping out of the garden and away from the White House, Obama still visits many schools to talk to teachers and children about the way that plants and gardens can make us healthier. In response to Obama’s efforts, many schools have planted community gardens to teach children the importance of plants and vegetables.

ARTIST STATEMENT
Throughout Michelle Obama’s years as First Lady, I watched her with admiration as she inspired the nation to be healthier, plant community gardens, eat more fruits and vegetables, and be physically active in her “Let’s Move” campaign. In my portrait, I tell the story of her work with the White House Kitchen Garden. I portray her infections joy surrounded by the plants that she cultivated. I aim to remind the viewer of her contribution to the world of plants and to making this country healthier. I also hope to inspire viewers to do their part, whether it be planting a community garden, buying local produce, or simply making a conscious choice to eat more fruits and vegetables.
NATASHA BOWENS BLAIR
(b. 1984)
Portrait by REBECCA DUFFY

ABOUT THE HERO
Author of *The Color of Food*, Natasha Bowens Blair is exploring the way that Americans approach farms, not just the land themselves but the people that are behind the farms. Focused on the unsung farmers of color, Bowens is working to expand the story of the American farmer. For *The Color of Food*, she traveled across the United States listening, documenting, and photographing more than fifty farmers. She focused on preserving their stories and the cultures that surround what they do. Bowens shines light on the history of the Black Latino Indigenous and Asian farmers often left out of the media.

ARTIST STATEMENT
For Natasha Bowens’ portrait, I knew that the main force had to be her smile. Her grin is present in every picture, whether advocating, interviewing, or farming. I clad her in a gingham with her hair in a loose bun suggestive of a long day spent in the fields. I paired this look with fashionable earrings, suggesting that she is ready to speak from the podium. I used bright colors, suggestive of warm, sunny days and fresh produce. The piece was created with acrylic paint applied by brayer, stamp, and palette knife, and finished with water soluble oil pastels.
PEARL FRYAR  
(b. 1939)  
Portrait by DEBBIE TARSITANO

ABOUT THE HERO

Pearl Fryar has been creating topiaries in Bishopville, South Carolina for over twenty years. Fryar started his garden by salvaging plants from compost piles to try to win a local gardening prize. Now his three-acre garden is open to the public throughout the year. Visitors can see the message of “love, peace, and good will” in the topiaries he shapes. He creates these topiary sculptures to share this message with the world.

ARTIST STATEMENT

Today I strive to create cast glass elements combined with oil painting to express ideas in portraiture. I am especially focused on reinventing the portrait, transferring the interests and core values of a person onto canvas. I see limitless possibilities in combining the many materials and techniques I’ve mastered over the last 40 years. Art can be a vehicle for understanding, a voice—using a universal language. I am interested in inviting everyone to enjoy art and discovering your own voice within it.
RACHEL CARSON
(1907-1954)
Portrait by MARIA PALKON

ABOUT THE HERO
Rachel Carson, as an author and ecologist, was interested in the relationships between plants and the world around them. She wrote many books about the beauty of nature. It was her mission for everyone to understand the importance of the environment. When dangerous pesticides were being used on plants, Carson spoke in front of the United States Congress, informing on the negative impacts of these chemicals. Her work inspired people to look carefully at the natural world and her passion sparked the modern environmental movement.

ARTIST STATEMENT
Rachel Carson’s writing has touched my heart in a way I wasn’t expecting. I have placed her on a pedestal of brilliant women who I now look to for inspiration. Known for her book Silent Spring, Carson’s first love was always the ocean. In this cutout, I have portrayed her as a wispy being, mixing with the underwater currents she so fondly wrote of. Her biological research kept her in sight of the ocean, and she wrote about her findings with an affection that transfers to the soul of the reader. Her writing was poetic, insightful, and tender with hints of the romantic I believe she was.
RON FINLEY
Portrait by SUSAN HONG-SAMMONS

ABOUT THE HERO
Born and raised in LA, Ron Finley planted his first garden in 2010. Finley found issue with driving over thirty minutes to buy fresh local food. To fix this, he grew a garden in the only land he could find … the small patch of dirt in front of his house, between the sidewalk and the road. Though the city of LA cited him for gardening without a permit, Finley started a petition in his community to fight for the right to garden in the neighborhood. His efforts worked, and he has been inspiring others ever since.

ARTIST STATEMENT
Creating art is similar to training for a marathon. It takes discipline, a bit of natural talent, and a whole lot of work and determination to get it just right. The underlying theme in all my art is making a connection, creating a dialog, and encouraging the art of conversation. My inspiration comes from nature and how it can be illuminated by a bit of light; the profile of a stranger, the glow from a woman’s scarf onto her skin, reflections on water, neon glow on passerby, an edge or an interesting line.
THEODOSIA BURR SHEPHERD
(1845-1906)
Portrait by CAITLIN MITCHELL

ABOUT THE HERO
Known as the Flower Wizard of California, Theodosia Burr Shepherd learned how to hybridize flowers, using scientific methods to combine different properties. She developed many kinds of flowers; some are very rare while others are commonly grown today. She was the first woman in California to make hybrid flowers and sell their seeds. Her flower seeds were valuable to people from all over the United States. She hoped that her work as a business woman, entrepreneur, and teacher would inspire women to study horticulture.

ARTIST STATEMENT
Although my body of work ranges from abstract acrylic pour paintings to realistic still lives to topography, the image of Theodosia Burr Shephard captures the essence of my artistic footprint. It is simple in its form and uses only black while not overwhelming the eye with too many busy details. I enjoy the process of creating something pleasant to look at through the dedication of using only one or two different forms of dry media. As an artist, I feel I have a responsibility to create truth through my work that can help people make a difference. This responsibility along with my passion for saving our environment connected me to this project immediately.
TOMITARO MAKINO
(1862-1957)
Portrait by YOKO OHARA

ABOUT THE HERO
Tomitaro Makino is known as the father of Japanese botany. Makino studied and illustrated over 3,000 flowers and vegetables. His drawings were not only scientific but also beautifully rendered. Makino was one of the first botanists in Japan to systematically classify Japanese plants. He documented 50,000 species during his lifetime and illustrated many of them for his book, Makino’s illustrated Flora of Japan. Even though he dropped out of elementary school, he achieved a PhD later in his life and his birthday is now celebrated as Botany Day in Japan.

ARTIST STATEMENT
My portrait of Tomitaro Makino represents how I see him in his world of botany. He was devoted to it and my aim was to show how engulfed he was by his work. I also wanted to relay the joyous impression that I got from various photos of him. He seemed quite the cheery person doing what he loved most, learning about and discovering the flora of Japan. The plants painted in the portrait are from his book titled Nihon shokubutsu zusetu. Kenka oyobi yoshiruibu, which has illustrations and descriptions of plants in Japan. I combined line work inspired by ukiyo-e, a style of Japanese woodblock prints, with the plant paintings to cloak him with the floral of Japan.