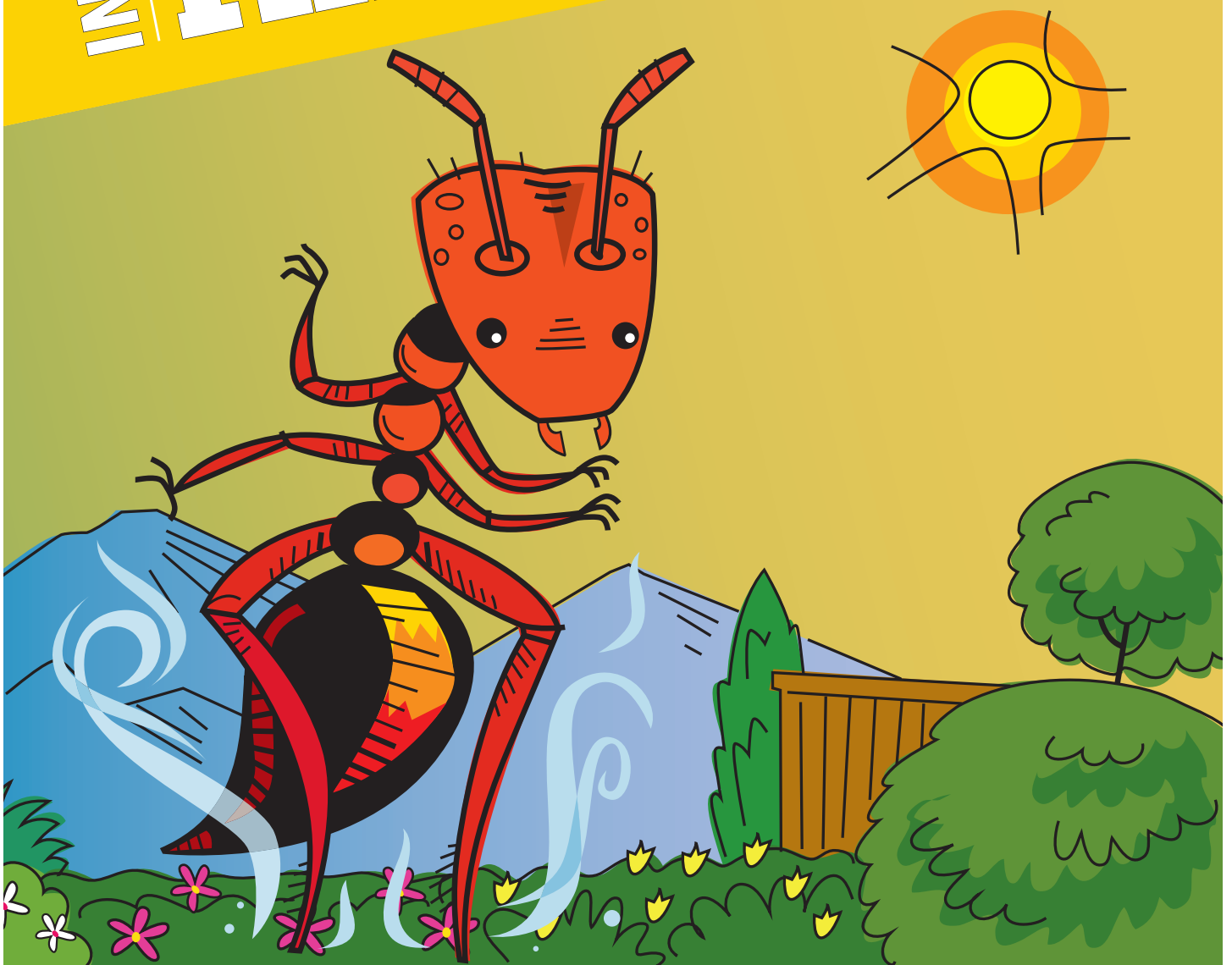




Help the Plant Heroes protect our forests
by slowing the spread of pests and diseases!

INSECT | RED IMPORTED FIRE ANT

PLANTHEROES.ORG
BEGINNER
ACTIVITY
BOOK



AMERICAN PUBLIC GARDENS ASSOCIATION

Meet the PLANT HEROES!



LAURA WILKINS

From: Athens, Georgia
Hobbies: playing the trumpet,
gardening, studying ecology

FRANKIE BARKER

From: Shrewsbury, Massachusetts
Hobbies: climbing trees, camping

NATE GREEN

From: Tacoma,
Washington
Hobbies: going on
adventures, learning
about fungi

APONI STAR

From:
Southeast
Illinois
Hobbies:
learning
more about
entomology
(the study of
insects)



plantheroes.org

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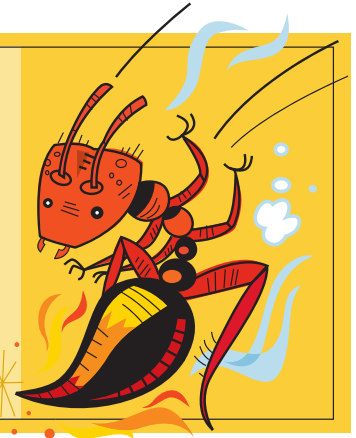
The Plant Heroes are four friends who love spending time in nature more than anything else! They enjoy climbing trees, walking trails, and camping.

The heroes are learning about why our forests are in danger. There are insects and fungi that can impact trees, sometimes affecting the health of whole forests. Trees may become sick or die when they are weakened by an invasive species, a living thing that can cause damage to existing organisms when it is introduced to a new environment.

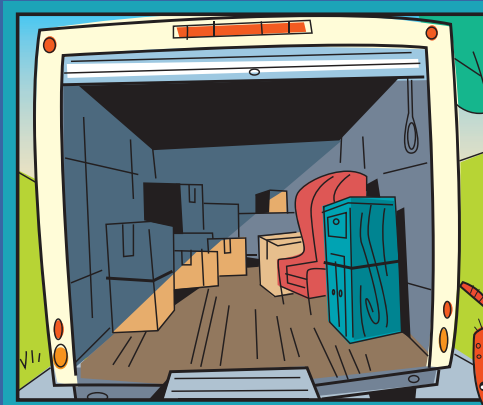
Follow Laura to learn the story of how she helped slow the spread of the red imported fire ants...



ANTS in your PLANTS!



Laura has been helping her family get ready for some big changes. Her grandparents are ready to escape the sticky summers of the southeast and are moving to a retirement community in Arizona. Laura's parents are going to take over their old house on the coast of Georgia.



It's moving day, and they finally finish loading up the truck with her grandparents' belongings. There's still a little room at the back!



Laura's grandma says she'd like to bring a few of her patio plants to liven up the new place, so they go around to the back patio and pick out a few of her favorites.



As Laura bends down to pick up the first plant, she notices a lot of ants crawling around the base of the pot.



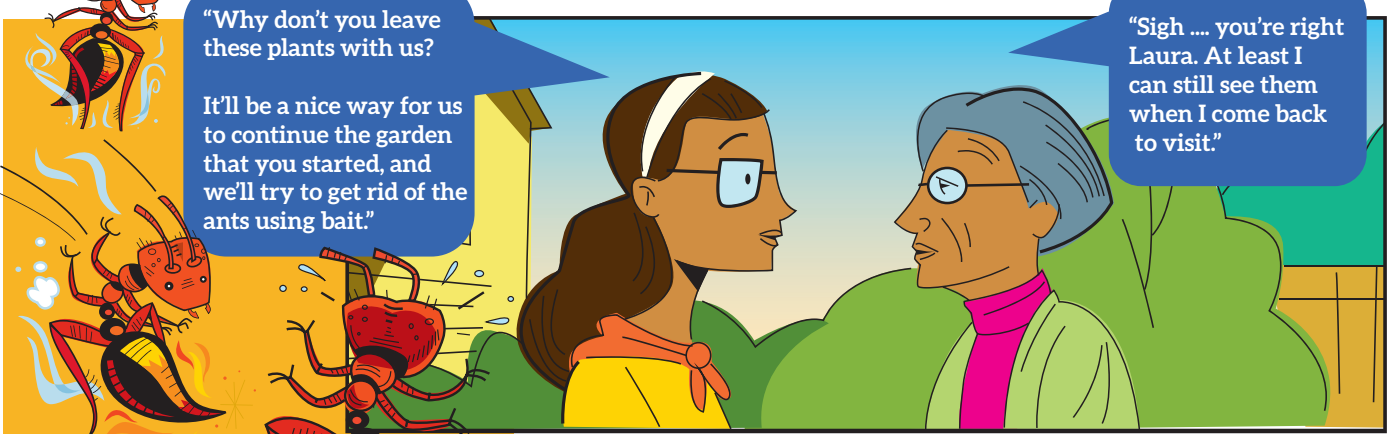
Just then, she remembers when she got badly stung by fire ants here as a kid.

The Plant Heroes are brought to you by the American Public Gardens Association. This comic was developed with financial support from the USDA — Animal and Plant Health Inspection Service and reproduced with financial support from the USDA — Forest Service. Play games and learn how you can protect plants at plantheroes.org.





WAIT!!
 We don't want anyone to get stung and you definitely don't want to introduce this pest to your new home!



"Why don't you leave these plants with us?
 It'll be a nice way for us to continue the garden that you started, and we'll try to get rid of the ants using bait."

"Sigh you're right Laura. At least I can still see them when I come back to visit."



Laura's family spends the next winter break with her grandparents. They're settled into their new place, so Laura and her grandma go shopping for some new plants.



While talking with the nursery owner, they learned that red imported fire ants hadn't been found in Arizona yet. Later that day, Laura and her grandma start planting the new garden together, thankful that they weren't the first to introduce fire ants into the state!



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Metamorphosis Time!



The red imported fire ant goes through four life stages from egg to adult. Learn more about each life stage below by matching each photo with the life stage it shows. Use the descriptions for help.

1



A tiny worm or **LARVA** comes out of the egg with no eyes or legs. Larvae eat a lot and grow very fast.

.....

2



Finally, the pupa changes into an **ADULT**. Young adults are often lighter in color, but they get darker as they grow.

.....

3



The life of an ant starts with an **EGG**. Ant eggs are tiny, soft, and shaped like an oval.

.....

4



When a larva is big enough, it changes into a **PUPA**. During this stage, pupae rest and reorganize. They look more like adults, but their legs and antennae are folded against their bodies.

HANDY TIP!

Add an "e" at the end of larva or pupa if you are talking about more than one larva or pupa!



Parts of an Ant

Ants are insects. They have three different body sections: head, thorax, and abdomen. Read the descriptions for the ant's body parts below and write the correct name in the dotted lines.



WORD BANK:
THORAX, LEG, EYE, ANTENNA

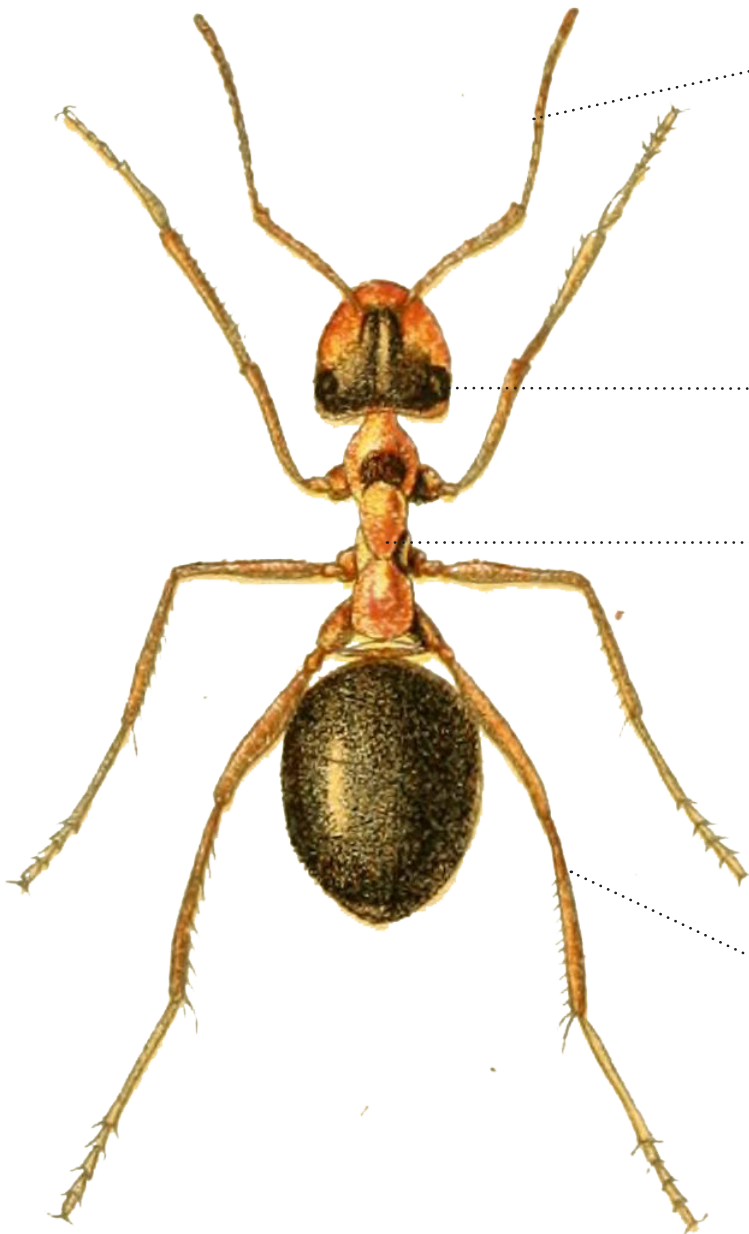
ANTENNA

Part of the head that helps insects sense the world around them.

Body part the insect uses for seeing.

Part of the ant where the wings and legs are located.

Body part the insect uses for walking.

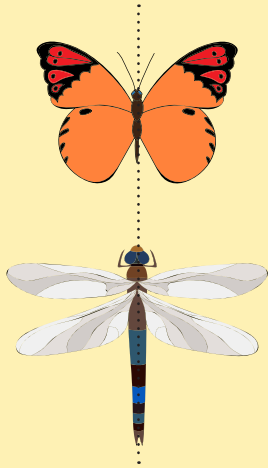


Ant Symmetry



Did you know ants have symmetry? In fact many things in nature do! Something has symmetry when a line can be drawn through the middle and the object is the same on both sides. Complete the drawing on the other side and learn the ant's body parts! You can add some colors to your drawing.

EXAMPLES OF SYMMETRY:



DID YOU KNOW?



Ants can lift 20 times their own body weight. If you were this strong, you would be able to lift a car!

Ants don't live by themselves, they form colonies.

The queens can live up to six years!



plantheroes.org

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A Maze of Ants

Ants are social insects, which means they live in colonies or large groups. There are three kinds of ants in a colony: The **QUEEN**, the **FEMALE WORKERS**, and the **MALES**. Learn more about the different types of red imported fire ants by completing the maze below!



START →

MALE

They have wings, mate with the queen and don't live long.



WORKERS

All the workers in the colony are females. They have no wings, and cannot lay eggs.



QUEEN

There is only one queen per colony. Queens can lay as many as 1,500 eggs per day.

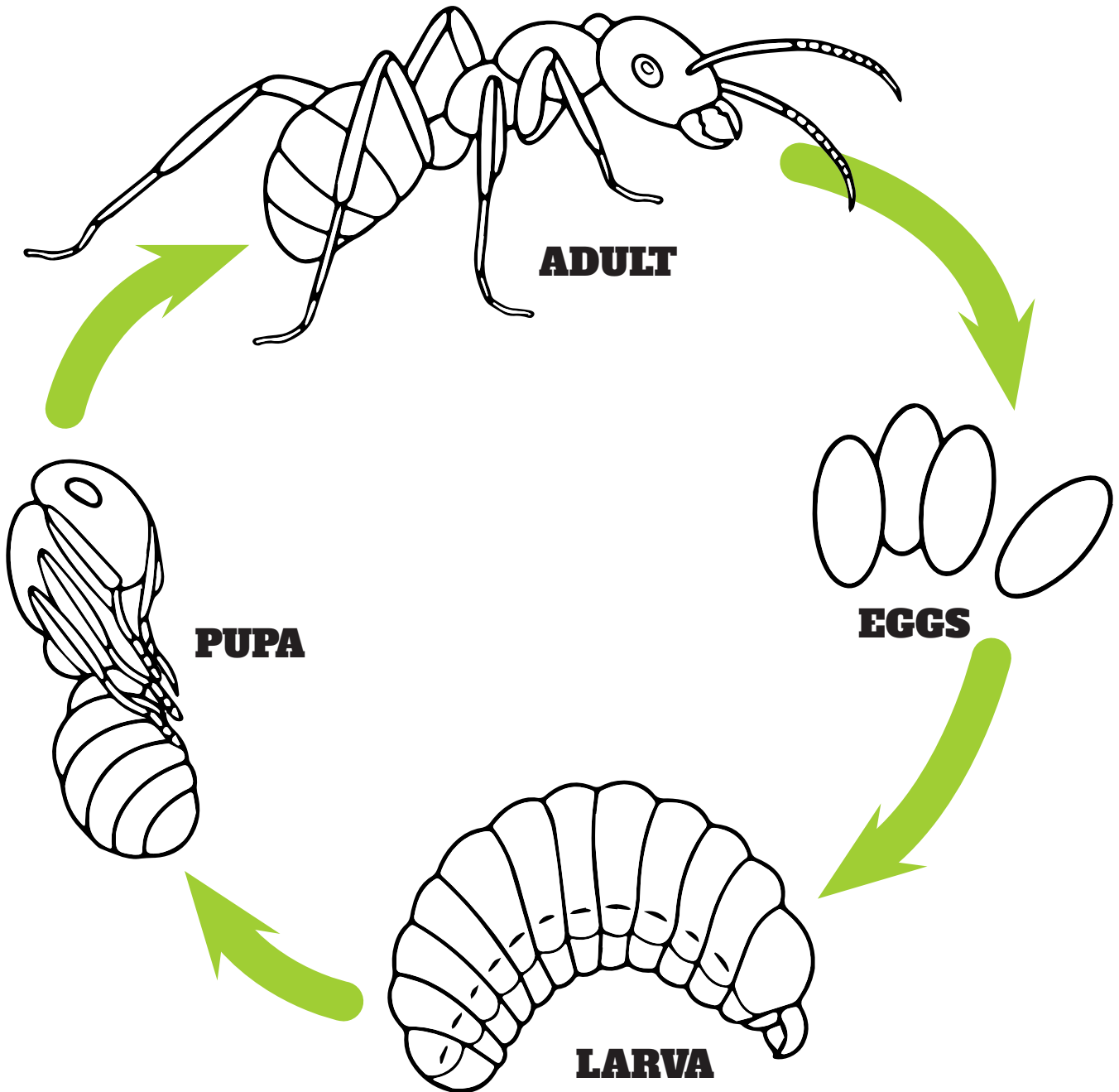


FINISH

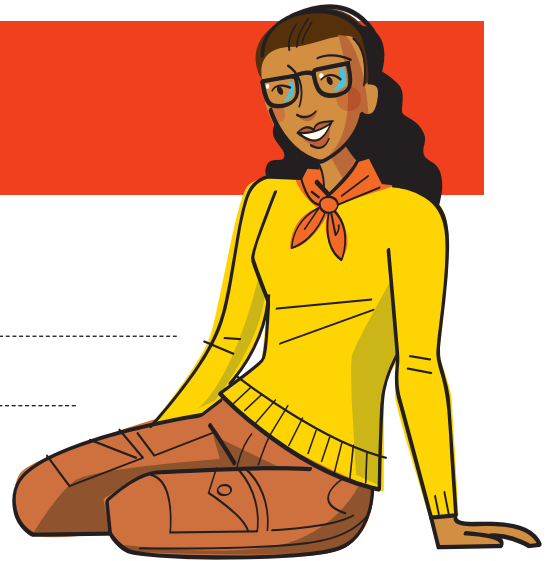


Color the Lifecycle!

Using the information in this activity book and the field guide, can you color the lifecycle of the red imported fire ant?



Time to Journal



What I remember most about red imported fire ants is

.....

.....

.....

.....

The coolest thing I learned in this book is

.....

.....

.....

.....

.....

My favorite plant I want to protect is

.....

.....

.....

.....

.....



ANSWER KEY

Metamorphosis Time: 1: Egg; 2: Pupa; 3: Larva; 4: Adult

Parts of an Ant (from top): Antenna; Eye; Thorax; Leg





Join our team of Plant Heroes and learn about trees, forests, and the natural world around you!

PLANTHEROES.ORG

You can be a Plant Hero!

Are you curious about plants and animals? Do you like asking questions about nature? Do you enjoy being outdoors and having fun, climbing trees, balancing on logs, or finding a new butterfly or beetle? If so, you are already on your way to becoming a Plant Hero! We invite you to join forces with Nate, Laura, Aponi, and Frankie to protect the plants and ecosystems we all love.

How can you become a Plant Hero?

Join our team and go on a journey with Nate, Aponi, Laura, and Frankie. As a Plant Hero, you will learn to notice when plants are in trouble. You will also find out ways you can act quickly to help find solutions in your own neighborhood. Follow their adventures and learn how they help plants and ecosystems stay healthy.

On the Plant Heroes website, you will find materials to help you learn about plants, forest health, and ecosystem balance. The more you know, the more you can help protect plants and ecosystems in your own yard, neighborhood, and community!

Plant Heroes strives to spark curiosity about nature and science in all children. Our program provides hands-on, nature-based learning materials for educators to engage children in topics of plant health, ecosystem balance, and forest health. We also spotlight the amazing work our public gardens do in protecting the plants and ecosystems we all depend on through our website and printed materials. Visit plantheroes.org today to learn more!

Plant Heroes is brought to you by the American Public Gardens Association, founded in 1940. Over the last eight decades, the Association has supported the work of public gardens in North America and beyond. Our mission is to champion and advance public gardens as leaders, advocates, and innovators in the conservation and appreciation of plants. Our vision is "A world where public gardens are indispensable" as they provide botanic, conservation, community, education, and economic resources to their community.

The Association is committed to increasing the knowledge of public garden professionals throughout North America through information sharing, professional development, networking, public awareness, and research, so that they have the tools to effectively serve visitors and members.



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This publication was developed with financial support from the US Forest Service and the USDA Animal and Plant Health Inspection Service.

