

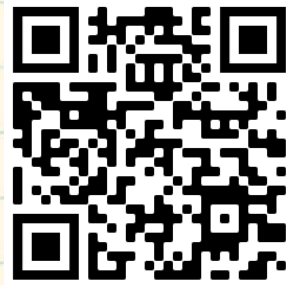
WE NEED YOUR HELP!



We are glad to provide these materials for free. In order for us to continue receiving funding for new materials, we need to collect information on how they are used.

Thank you for taking the time to answer the following one-minute survey.

There are three ways to complete the survey:



- 1** Scan this code with your smartphone camera
- 2** Type the following link into your web browser:
<https://plantheroes.org/educator-survey>
- 3** Email your answers to:
plantheroes@publicgardens.org



- 1) Job title
- 2) Name of organization you belong to
- 3) What kind of educator are you?
 - Teacher
 - Summer camp counselor
 - Home schooler
 - Public garden educator
 - Informal educator
 - Other (please describe)
- 4) What grade level do you teach?
 - Elementary (K-5)
 - Middle School (6-8)
 - High School (9-12)
 - Other (please describe)
- 5) Specify what subject area you teach:
 - Science
 - Math
 - Language Arts
 - Social Studies
 - Other (please describe)
- 6) How many students do you teach in a school year?



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

INSECT | **WALNUT TWIG
BEEBLE**

PLANTHEROES.ORG
**BEGINNER
ACTIVITY
BOOK**

Aponi Star



BE A PLANT HERO!
Help Aponi slow
the spread of the
Walnut Twig Beetle!

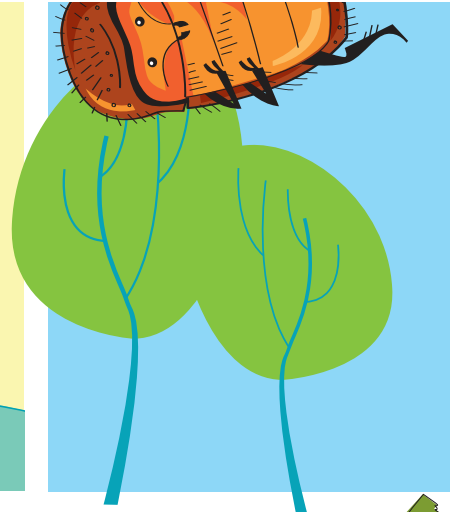


Plant
Protection
Program

AMERICAN PUBLIC GARDENS ASSOCIATION



TO CATCH A THOUSAND CANKERS



Aponi is spending the summer helping her dad, Ben, remodel their kitchen.



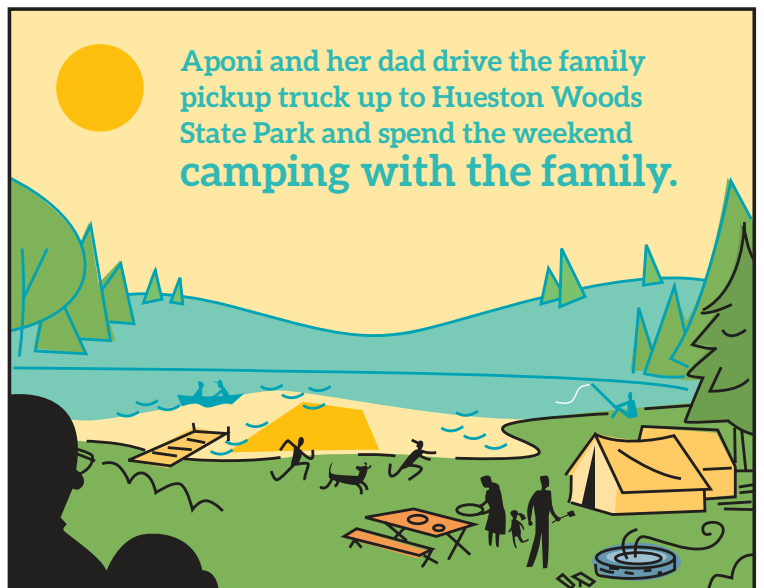
Ben loves making furniture!



He has spent weeks searching the internet for rough-sawn walnut and has finally found a supplier in Ohio for the last item on their project list—a new kitchen table and chairs!



Ben realizes that the seller is located near Aponi's cousins in Hamilton, Ohio, and suggests that they make it into an end-of-summer ROAD TRIP!



Aponi and her dad drive the family pickup truck up to Hueston Woods State Park and spend the weekend camping with the family.

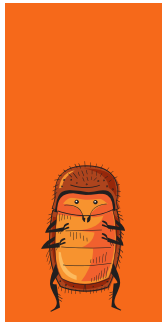
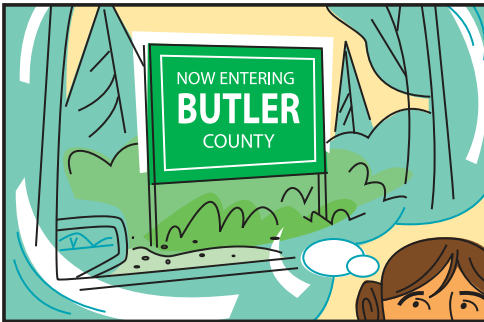
On their way home, they stop in the nearby town of Oxford to visit the man that was selling the walnut lumber.



LOOKS GOOD ENOUGH TO EAT!

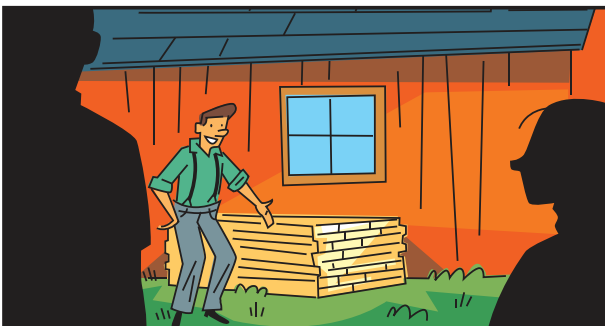


Ben inspects the wood and everything looks good... the bark is still on the edges but the lumber looks straight and the price is right!



WAIT DAD!

"Illinois has an exterior quarantine to prevent raw walnut from being brought in from places known to have walnut twig beetle and thousand cankers disease. I don't think we should risk it! Can we look at some other type of wood instead?"



"Good catch, Aponi. I forgot about the fact that you folks were coming from out of state! Why don't I show you some of the redoak timber I just milled?"



Aponi and Ben load up and head home. They spend the last few weeks of her vacation together in Ben's woodshop and before school starts have finished the kitchen table and chairs. The grain looks beautiful and they can rest easy knowing that they didn't accidentally introduce a new forest pest!



Name _____



Date _____

**TREE
BRANCH
BARK**

**BEETLE
BUG**

**EGG
PLANT**

**WOOD
LEAVES**

G G U V **B U G** B W

W O O D N C O D O

T L P L A N T G A

E L E A V E S F A

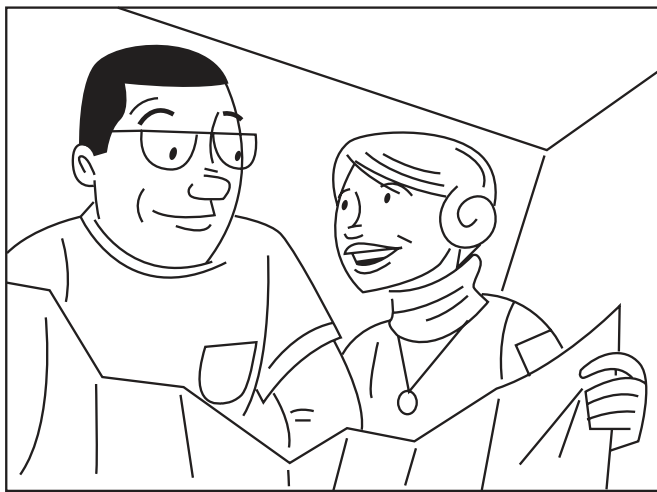
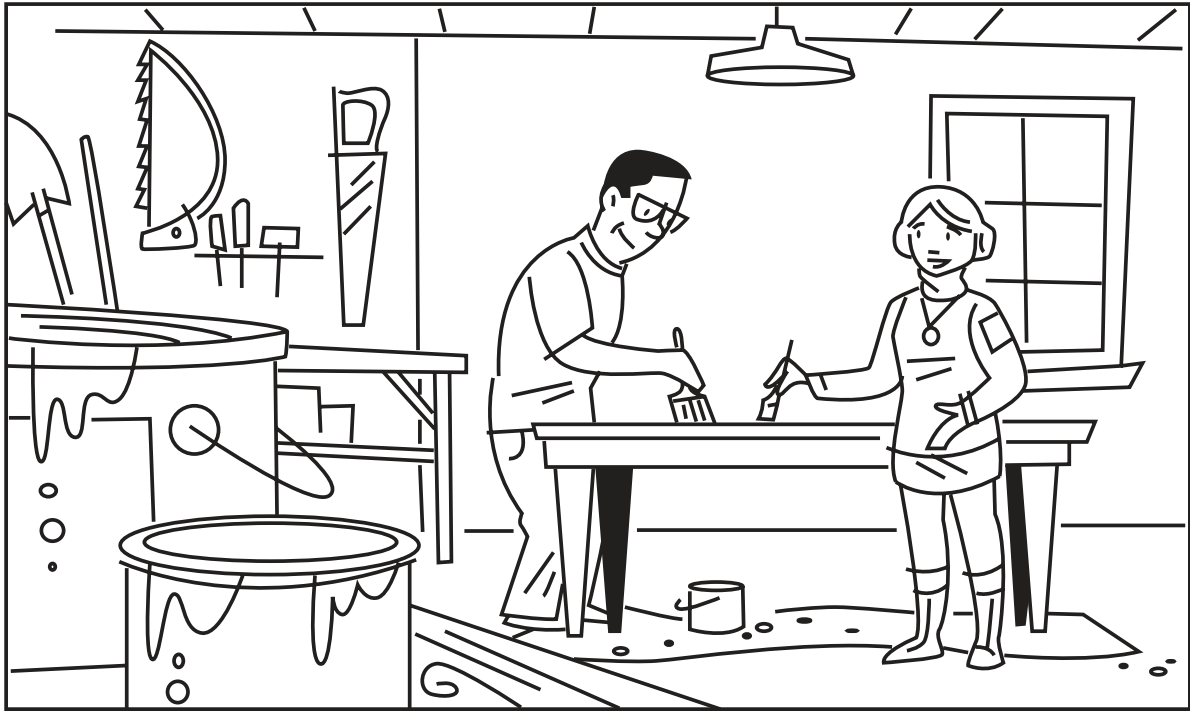
S B R A N C H A H

H T B A R K U R K

G G E Q O E E G G

E X E Y R T R E E

Q H U B E E T L E



PLANT HEROES



Name _____



Date _____

Find and circle the following words:

- BEETLE
NUT**
- BUG
LEAF**
- WOOD
EGG**
- FOREST
BARK**
- TREE
PLANT**

Complete the maze, and then find the words. The words can only be found along your maze path.

```

WQOYBHFMI LFSIVQFE EFQTWWYFCCMFLDAJQMFXJBUGGBAUFHEESRGOIOQOKYOS
G      U      E      N      I      K
X      M      Q      O      P      B
K      T      T      I      A      S
D      XORCC  BTHGFHELC  A      L      S      S      L      FCKLRDFVMPTPI  O
      Q      E      Y      P      T      P      V      W      S      K      Q
END ◀ F      L      D      B      A      H      E      V      J      N      C
      O      I      S      T      S      R      O      N      P      K      R
H      R      MGTKL  O      U      E      ATAMX  T      LWOLBEETLENSB  I      J
K      E      V      X      N      A      B
M      S      A      M      A      N      N
J      T      F      R      I      T      U
Q      OJVVHHLXFJAGN  KLNQK  MGR LQNC SN  PDVGVXBPEGGKIFPJN  X
H      V      C      O      C      P
I      V      N      E      J      O      ◀START
G      P      Y      N      E      C
A      UGWBJTANV  BSAWLND DMFEIHQCIKQFBY  X      E      HCJMD  U      F
D      T      K      D      X      U      V      P
R      C      N      D      E      W      E      W
O      P      H      W      R      J      Q      W
IGQBSIAPU  PCNYRFD BGHTKJ  U      W      RWYWPFKUBDKUM  DHFMC  P
T      T      U      L      F      P      H      L
P      K      L      Y      D      K      D      J
A      W      A      R      S      Q      O      R
X      BARKAVTJDGUHP  N      FOQJTICPVGAOR  Q      E      C      W      WHJXS
M      U      U      A      S      P
U      T      O      V      U
I      N      H      C      L
CYLNFDRPCALEAFWOODDSDEBRCHQOTREEOFKTURHAJOAGGETEPKHFIFGTTFMY
  
```



GAMES!

Learn more and test your knowledge with interactive games on plantheroes.org

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PLANT HEROES





Name _____

Date _____

Complete the maze and then find the words. The words can only be found along your maze path.

MBWIBFGVDRUTTGMAFIREWOODAOCDHGMRDWBEQWNVNVPUPAQBVOVSPVVIFUBJXN
 O X S K G
 O F K B B
 C M V T K
 T WBNKS Y TLDAMAGEJ HYYGO LHBAL NYRYEJLBP J W
 U A E W M U E X H X
 N L P J L F A S T V
 N N D T O V B H C U
 E U R A X D YJNAK D JPCICSQWYKYAL GNGYD Y
 L T T H E X P A U
 I A X N S W O H E
 G D P L J D I V B
 S UEWNEEFRJCCVDGAJLBSHR W WHLLN EBINSECTXFNMQ KNBWP
 D L B C F L O W
 V T R M J S L Y D ►END
 C N Q Y S A E I
 V Q CAOKLMCUR CIJYQ RJIPO P OHKWC R K S F
 M N P Y E L V N E U
 START► L B A C Y L C J A G A N
 R S C H H N I N E A S G
 X KSIFK J TJDPU Q X I EKBPX KANPI L E U
 H M U H W S X L P S
 T P F G E H U E F R
 Y Y B G Y J L R S P
 R K KBPKQ N PTXPEOHEX BHGKT GXXSX V Y N R
 L Y H R A Q
 W F C X I W
 L E H U R D
 NMWWNVGQQUPJEGOOESLEYTIXBCNALLKOSCHLURCRSTIHUSTTUGCDKWSLVRLP

Find and circle these words:

**DAMAGE
TUNNEL
LARVAE**

**PUPA
GALLERY
INSECT**

**SPECIES
FIREWOOD
FUNGUS**

**WALNUT
ADULT
DISEASE**

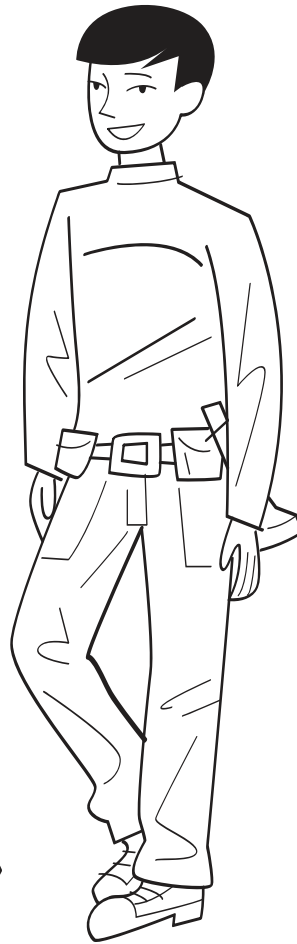
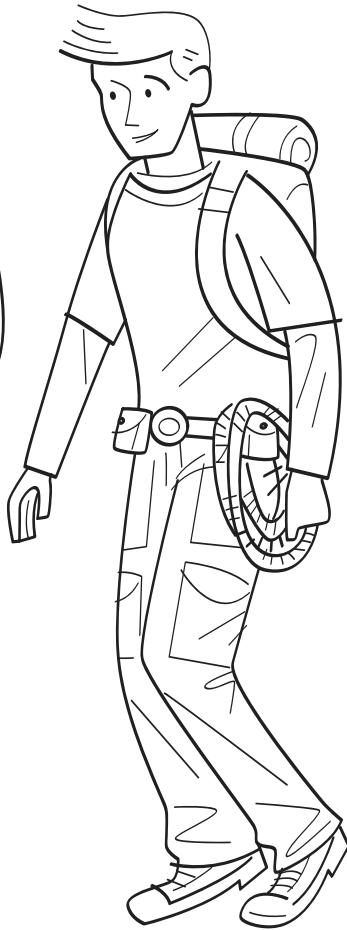


GAMES!

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PLANT HEROES



Plant Heroes Pledge

This Certifies That

is an Official Member of the Plant Heroes Team and pledges to:

**Learn about the
pests and diseases
that affect the
plants in my region**

**Be on the lookout
for symptoms of
pests and diseases
on trees in my
neighborhood**

**Report any suspicious
findings to an adult
who can notify the
local extension agent**

**Refrain from
moving firewood**

Awarded by the
American Public
Gardens Association





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.



**American
Public Gardens
Association**

PublicGardens.org



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

