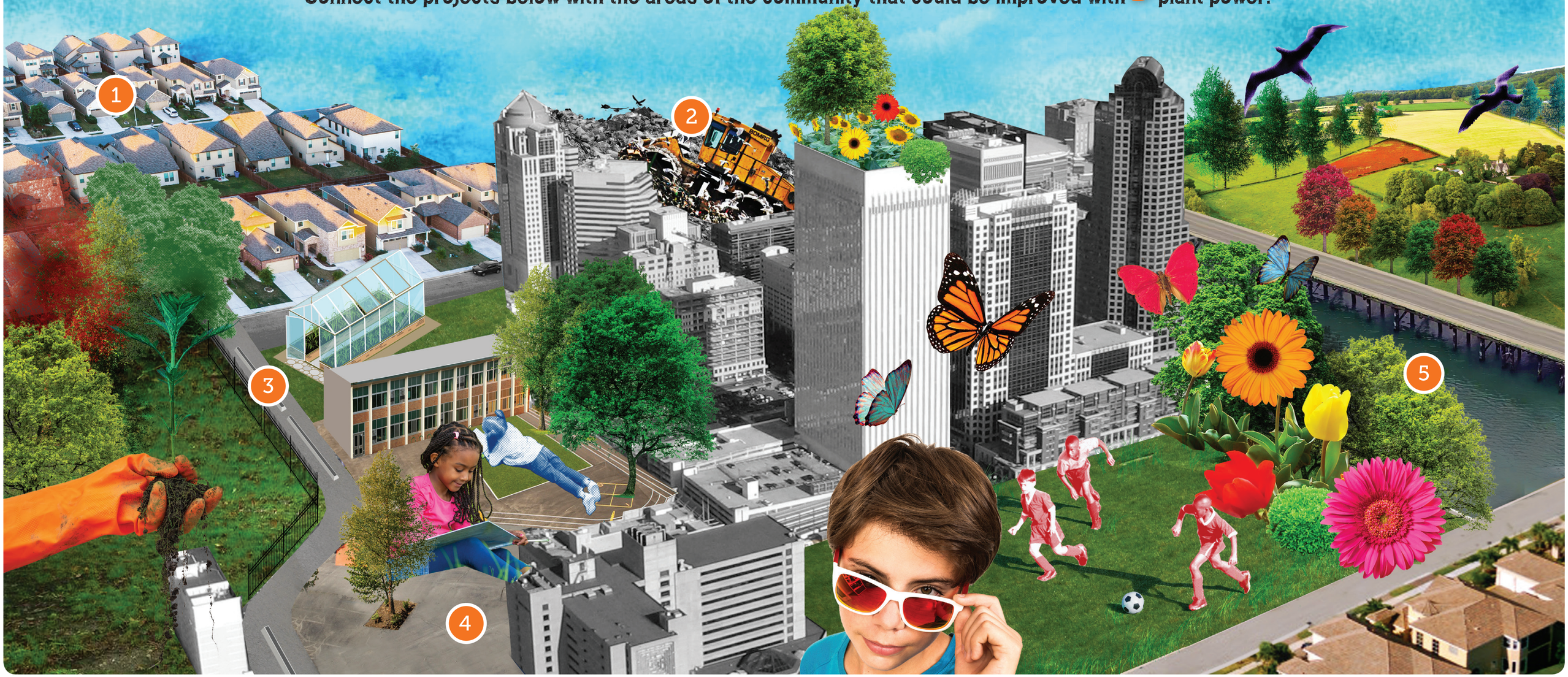
SCHOLASTIC

Make Your Community Bloom

Connect the projects below with the areas of the community that could be improved with plant power.



A Add greenery to roadways to dampen sound from traffic and lessen the amount of pollution that enters the air and nearby waterways.

B Remove dangerous materials and waste from a dump, and plant trees, shrubs, and grasses to return the land to its natural state.

C Plant vacant city lots and start green markets where neighbors can get together and share/buy fresh fruits, vegetables, and flowers.

D Plant by riverbanks to help keep runoff and effluent out of the water. Plant tall grasses to increase food and habitat for wetland critters.

E "Crank up" the variety of trees and plants in suburban neighborhoods to break up sprawling lawns and increase local biodiversity.

BLOOM! Powered by Seed Your Future

Extra Credit: Do you see plant solutions that have already taken root? Can you spot even more room to grow?

Answer key is located in Lesson 2.

Barriers to Healthy Ecosystems

Is your community ready to bloom? Have your students identify issues and challenges that stand in the way of a flourishing ecosystem.

Objective

Students will identify real-world challenges that put their community's health and sustainability at risk.

Time

PART A 45 minutes

PART B 45 minutes

Materials

Identify the Challenge activity sheet

Map Your Community's Challenges activity sheet

PART A

1 Share the following list of issues with your students: flooding, polluted water, polluted air, hunger, mudslides, greenhouse gases, hurricanes. Ask them to guess what the items on the list have in common. Explain that these are just a few community issues whose impacts can influence an ecosystem.

2 Hand out the Identify the Challenge activity sheet. After students have described how each environmental challenge impacts humans, have them gather in small groups to discuss.

3 Instruct students to research environmental challenges in their state. Provide 15 minutes for students to grab quick facts on what the challenges are and how communities are addressing them. Afterward, allow time for groups to share what they learned with the class.

PART B

1 Ask students to reflect on their research and brainstorm additional environmental issues in various communities (e.g., communities that are urban, suburban, or rural; colder or hotter; on other coasts, in other countries or continents). Use the below prompts to get the ideas flowing:

- Smog is a big problem.
- There isn't a place for kids to play in my neighborhood.
- I want more birds in my backyard.
- Construction downtown is making everything gritty.
- Large portions of the rain forest have been cut down.
- Some people don't have access to fresh fruits and vegetables.
- Our city has no plants or grass, just concrete everywhere.

2 Hand out the Map Your Community's Challenges activity sheet. In their community maps, students should include details of any environmental challenges they can think of. Have them share their drawings in groups and help refine one another's ideas

3 Have students save their drawings for the next lesson. For homework or extra credit, have students click "Game Time" on the online module at **scholastic.com/bloom/plantpower** and complete the Which Plant to Plant? digital activity.

NEXT STEPS

In the following lesson, you will introduce students to plant-based solutions to community challenges. They will develop a plant-based solution to an eco-challenge. Students' solutions can be entered into the Planting Your Solution Contest. For information on student and teacher prizes, how to enter, and official rules, visit **scholastic.com/bloom/contest**.

Teacher Instructions

Solutions That Take Root

ENTER THE CONTEST AT **SCHOLASTIC.COM /BLOOM/CONTEST**

Help your students harness the power of plants to create a plant-based solution for community issues.

Objective

PART A Students will use defined environmental, social, and healthy ecosystems criteria to solve a challenge in their community.

PART B Students will research natural and environmental hazards using reputable sources like the U.S. Department of Agriculture to develop plant-based solutions to mitigate their effects.

Time

PART A 45 minutes

PART B 45 minutes

Materials

- Create Community Solutions activity sheet
- Make Your Community Bloom classroom poster
- *Green Collar Careers* student magazine
- Optional: Planting Your Solution Contest entry form
- Optional: Family Resource sheet

PART A

1 Display the classroom poster and introduce the concept of plant-based solutions. Discuss the roles that plants play in the community on the poster. Work with students to match the plant solutions with the community challenges. Answers: A3, B2, C4, D5, E1.

2 Discuss harmful ways that humans interact with ecosystems, whether on purpose, accidentally, or by being passive. Impacts are also caused by natural forces, which can seem harmful but have positive effects, like a naturally occurring fire that helps regenerate forests and stimulate growth.

3 Explain that there are many ways plants can help mitigate risks and sustain their community. Share a few statistics with your students, such as:

- A hurricane can expend as much energy as 10,000 nuclear bombs. A well-vegetated wetland system can absorb the impact, protecting humans and wildlife.
- Many plants can remove carbon dioxide from the air. Researchers have found that trees can also remove up to 97 percent of volatile organic compounds (chemicals that have high vapor pressure).

4 Distribute the Create Community Solutions activity sheet. Discuss the solutions as a class. Have students break into small groups and identify which of the solutions could help their community.

PART B

1 Have students review the challenges they identified on the Map Your Community's Challenges activity sheet. Tell them they should choose one challenge to address with an innovative plant-based solution.

2 Provide time for students to sketch solutions to community challenges. Prompt them to use research and critical thinking to develop the best plant-based solution. Allow students to share their drawings with a partner and discuss improvements to strengthen their ideas.

3 Hand out the Planting Your Solution Contest entry form. Have students develop a solution to an eco-challenge and enter the contest with a drawing and a description of their solution. For information on student and teacher prizes, how to enter, and official rules, visit **scholastic.com/bloom/contest**.

EXTENSION Distribute the Family Resource sheet. It encourages students to go on a scavenger hunt with their families and take pictures of plant-based solutions in their community. Encourage students to share the pictures with you and/or the rest of the class for extra credit.

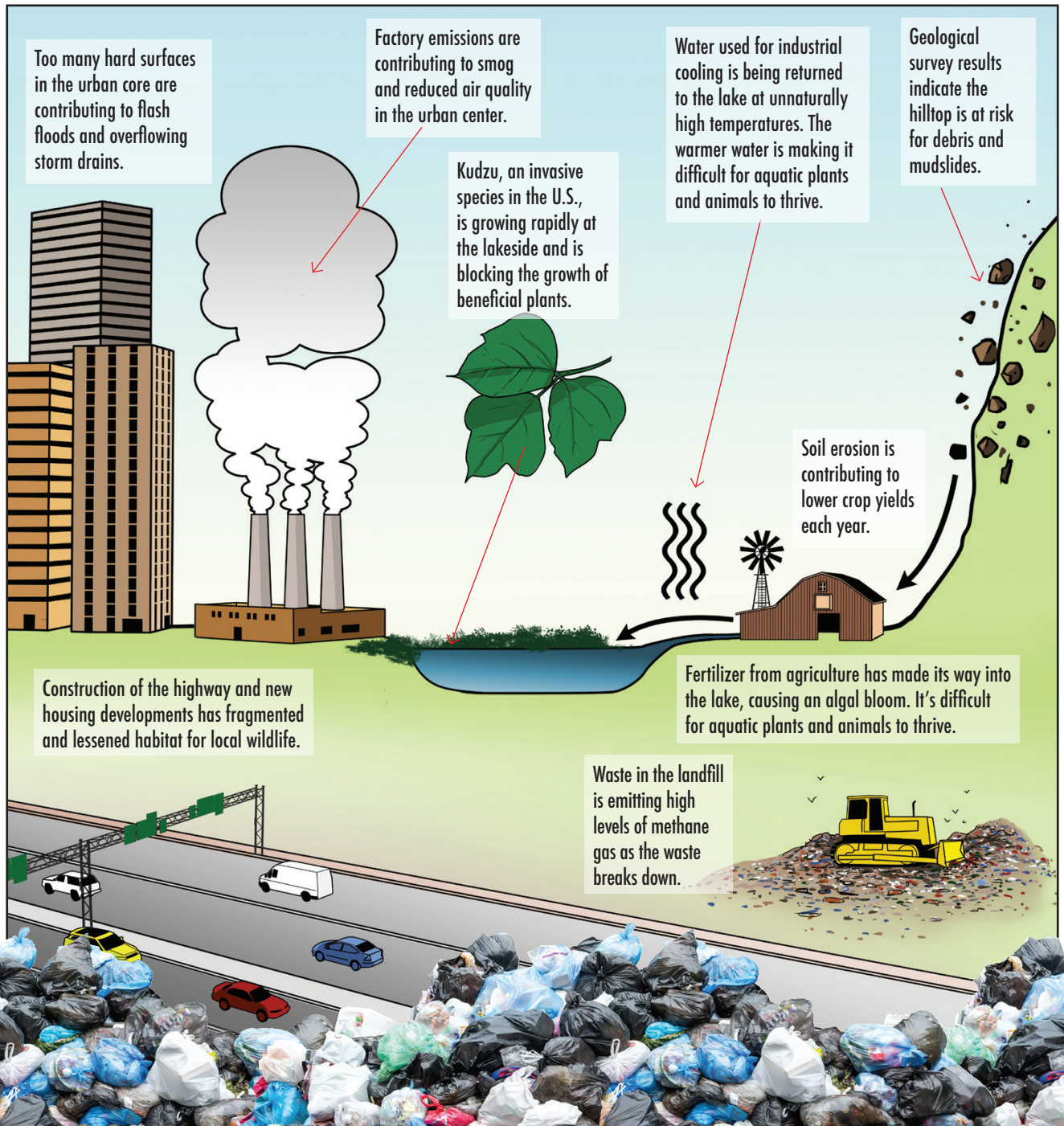
Identify the Challenge

Research the amazing power of plants to see how they can help address one of the community concerns below.

Get Ready Read about environmental risks below. Which do you feel are most concerning? Least concerning? Why?

Get Set Conduct research to see which of the below environmental risks is happening in your state.

Go! On a separate sheet of paper, write one or two paragraphs about how people are addressing this risk. Which "green collar" plant professionals are developing solutions?



Activity

Name _____

Map Your Community's Challenges

You've been selected to develop a plant-based solution for a space in your community. Start by identifying the eco-challenges in your neighborhood.

Get Ready Review the community considerations below. Which challenges exist in your community? What other environmental challenges does your community face?

Get Set Sketch an overhead view of your community's environmental challenges. Label each challenge.

Go! Write a few short paragraphs describing the impacts that the environmental challenges you've identified have on your community. Which "green collar" plant professionals would you enlist to help address these challenges?

Community Considerations	Draw Your Environmental Challenges
▸ Are there places for people to grow fruits and vegetables?	
▸ Are there areas where the soil is eroding?	
▸ Is there enough shade for people and small animals?	
▸ Is the water clean and healthy for wildlife?	
▸ Are there patchy spots of grass in yards and parks?	
▸ Are there plants that help clean pollution from the air?	
▸ Are there spaces that attract pollinators, birds, and wildlife?	

Create Community Solutions

Evaluate the real-world challenges and solutions below. Then identify issues in your own community and propose solutions that use plants and plant experts.

COMMUNITY ISSUE	IMPACT	PLANT-BASED SOLUTION	PLANT PROFESSIONAL
Large amounts of rainfall within a short period of time cause flooding in low-lying communities. **PROPAGULES** are plant structures capable of growing a new plant, such as a seed, spore, or plant cutting.	▸ Disrupts drainage systems in cities. ▸ Overwhelms sewer systems. ▸ Stagnant pools of water become a breeding ground for insects.	▸ Plant trees, bushes, and **propagules** around vulnerable areas so the roots dig deep into the soil and act as a barrier to floodwater. ▸ Support healthy wetland systems to purify water, regulate water flow, and stabilize bank streams.	**NATURAL LANDS MANAGER** ▸ Specializes in maintenance and upkeep of land such as wetlands. ▸ Determines optimal conditions for dry and flooded soil to support propagation.
Suburbia is "carpeted" with grassy lawns. These landscapes create a grass **monoculture** due to an aesthetic preference for green, well-kept lawns. **MONOCULTURE** is the practice of growing a single type of crop or plant.	▸ Chemical runoff from lawn fertilizer is a major source of water pollution. ▸ Monoculture creates fewer opportunities for biodiversity. ▸ Keeping lawns watered can put pressure on our freshwater reserves.	▸ Add trees and shrubs to slow rainfall, create shade, and provide animal habitats. ▸ Plant wildflowers to attract pollinators, frogs, and worms and other invertebrates. ▸ Choose plants that will survive in climate and soil conditions without the need for additional watering and fertilization.	**LANDSCAPE DESIGNER** ▸ Designs a beautiful and functional outdoor space incorporating a variety of plants. ▸ Uses knowledge of horticulture to recommend plants suited to climate, amount of sunlight, and soil type.
Vacant lots in urban centers attract illegal dumping, are unsightly, and detract from the pride residents feel about their communities. **FOOD INSECURITY** is being without reliable or consistent access to affordable and nutritious food.	▸ Dumping contaminates land with hazardous waste. ▸ Abandoned lots create an impression that a neighborhood is unsafe or not cared for. ▸ Untended lots can become breeding grounds for pests that carry bacteria and disease.	▸ Reclaim the land and clear it of debris and hazards. ▸ Create an urban garden and green market with plants, flowers, and vegetables.	**URBAN FARMER** ▸ Helps to lessen food insecurity by growing fresh and healthy food choices in urban centers. ▸ Increases access to locally grown plants and foods that have been produced in environmentally sustainable ways.

Entry Form

Planting Your Solution Contest

Uh-oh! You have identified an eco-challenge in your community. Draw a plant-based solution to address the challenge. Then explain how your solution will help. You can create a solution for one of the challenges below or identify a new challenge.

TOXIC DUMP

NOISE POLLUTION

SINGLE CROP

EROSION

AIR POLLUTION

Name the environmental challenge:

_____

Illustrate your plant-based solution in the space below:

In the space below, describe how your plant-based solution will reduce the environmental challenge and help the community.

_____

_____

_____

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CONTACT INFORMATION

STUDENT NAME: _____ GRADE: _____

TEACHER NAME: _____ TEACHER EMAIL: _____

SCHOOL NAME: _____

CITY _____ STATE _____

NO PURCHASE NECESSARY TO ENTER OR WIN. Students in grades 6–8, 50 US & DC; submitting parents/legal guardians 18+, 50 US & DC. Teacher, youth program leader, and parents/ legal guardian may submit an entry. Prizes: Three Grand Prize–winning students will each win a $150 credit to Scholastic.com. Submitting Adult of the Grand Prize–Winning Students will win a $150 credit to Scholastic.com. The randomly selected Sweepstakes student winner will win a $75 credit to Scholastic.com. Submitting Adult of the Sweepstakes Winning Student will win a $150 credit to Scholastic.com. Entries may be submitted electronically at scholastic.com/bloom, or by mail to Attn: BLOOM! Contest, Scholastic Inc., 3rd Floor, 557 Broadway, New York, NY 10012. Online entries must be received between April 1, 2019, and May 10, 2019 (the "Entry Period"). Entries submitted by mail must be postmarked by May 10, 2019, and received by May 17, 2019. Void where prohibited. Official Rules: scholastic.com/bloom/rules.

Hey, Parents!

At school your child has been learning about the power of plants to improve communities. You can help them grow their knowledge even more with this fun family activity.

GO ON A "PLANT HUNT"

Grab your phone or a camera and head outside for a family plant hunt. Using the chart below as your guide, snap pictures of environmental challenges in your community as well as examples of where plants are part of the solution.

FIND THE ECO CHALLENGE	FOUND IT!	SPOT THE PLANT SOLUTION	FOUND IT!
Rain water is eroding the soil.		Find a tree with roots that help prevent soil erosion.	
There's not enough shade for people and small animals.		Find plants and trees with large leaves that provide shade.	
Vacant lots are trash-filled and don't have any grass or other plants.		Find flowers with bright colors that attract pollinators like bees.	
Large areas growing a single crop prevents diversity in ecosystems.		Find a biodiverse area with at least three types of plants.	
Concrete and asphalt roads without plants are noisy.		Find plants near a busy traffic area that muffle noise pollution.	
Add your own challenge:		Add your own solution:	
Add your own challenge:		Add your own solution:	

SHARE YOUR FINDINGS

FOR YOUR FAMILY Post your challenge-and-solution photos on Instagram, Facebook, or Twitter with the hashtag **#PlantHunt** for a chance to win prizes in the Plant Hunt Sweepstakes.

FOR YOUR CHILD Encourage your child to enter the Planting Your Solution Contest with their own innovative plant-based solution to an environmental problem. Flip this page over for the entry form and abbreviated rules. When your child is finished with their entry, return it to their teacher, or submit it for them at **scholastic.com/bloom/contest**.

SWEEPSTAKES RULES. NO PURCHASE NECESSARY TO ENTER OR WIN. Students in grades 6–8, 50 US & DC; submitting teachers or parents/legal guardians 18+, 50 US & DC. Teacher and parents/legal guardian may submit an entry. Prizes: Four (4) Submitting Adults will be selected from all entries at random. Each winner will receive a $50 credit to Scholastic.com. All entries need to be posted on Instagram, Twitter, and/or Facebook and feature the hashtag #PlantHunt to be eligible. Entries posted on the social media account (or accounts) of a child are required to have the Submitting Adult verify eligibility if selected as a winner. An entry must be received between 12:01 a.m. Eastern Time ("ET") on April 1, 2019, and 11:59 p.m. ET on May 10, 2019. For full rules, go to **WeAreBLOOM.org/PlantHunt/rules**. Void where prohibited. See other side of this page for student contest rules.