

BLOOM!

Pursuing Plantology

Science and ELA Lessons and Activities for Grades 6–8

Dear Teacher,

Horticulture is an exciting and fulfilling field that offers diverse career opportunities. As professionals of the future, your students will benefit from learning about the basics of plantology and the roles that plant-based careers play in society.

In this program you'll find:

- ✓ Three lessons on horticulture, plant-based careers, and plant purposes
- ✓ Three activity sheets that accompany the lessons
- ✓ Classroom poster featuring horticulture career profiles
- ✓ Student magazine about plantology featuring career profiles
- ✓ **Interactive learning module with video, lesson, and quiz components**
- ✓ Printable board game with trivia cards

Plant Mash-Up Contest

(Teachers: You could win a \$250 gift card!)

Enter your students in the Plant Mash-Up Contest for a chance to win:

✿ **Class field trips!** ✿ **Teacher gift cards!** ✿ **Student science kits, and more!**

Students will use the entry form in this guide to combine two plants into a hybrid.

To enter, teachers must submit student entries online by **March 20, 2018**.

To enter by mail, send to: Plant Mash-Up Contest, Scholastic Inc., 557 Broadway, ATTN: S. Fowler, Bldg. 568, New York, NY 10012.

NO PURCHASE NECESSARY TO ENTER OR WIN. Void where prohibited. The promotion is open only to students currently enrolled in grades 6–8 at a public school, an accredited private school, home school in compliance with the laws and regulations of its state/district, or participating in an out-of-school time program in the 50 US/DC and who are residents of the 50 US/DC. Entries may only be submitted by a student's Teacher, Youth program leader, or his/her parents or legal guardians—submitting individuals must be over 18 (19 in AL or NE) and residents of the 50 US/DC. To enter, eligible students will create a drawing and description of a hybrid plant on the Official Entry Form available at scholastic.com/bloom/contest. Only adults as listed above may download and submit entries by uploading them at the above site by 11:59 p.m. ET on March 20, 2018, or mailing them (postmarked by March 20, 2018, and received by March 27, 2018) to Plant Mash-Up Contest, Scholastic Inc., Attn: Sarah Fowler, 557 Broadway, New York, NY 10012. The Student Grand Prize Contest Winner will receive a science kit, National/State Parks Family Pass, and \$100 gift card (ARV: \$625); the Student Runner-Up Contest Winner will receive a science kit and a \$50 gift card (ARV: \$275); the Student Sweepstakes Winner will receive a science kit and a \$25 gift card (ARV: \$250). Prizes for the adult submitting the winning entries and the winner's classroom/youth program also awarded, see Official Rules for details (Total ARV: \$3,650). For the Official Rules visit scholastic.com/bloom/contest. SPONSOR: Scholastic Inc., 557 Broadway, New York, NY 10012



Pursuing Plantology

TEACHER GUIDE

Lesson 1: Connecting With Nature

GOAL: Students will explore the connections between natural habitats and urban stability.

TIME REQUIRED: 30 minutes

MATERIALS: Natural Disruptive Scenarios Activity Sheet

❶ Tell students that cities and nature are connected in countless ways. Ask for volunteers to give a few examples of how city dwellers interact with nature on a daily basis and how they depend on nature for their well-being. To expand on the topic, offer these facts:

WATER: Most cities do not have their own water supply, so they must depend on clean water that comes from other places. Often this source is a river or a distant reservoir. If that river or lake becomes heavily polluted or begins to run low, the city is in trouble. Cities rely on healthy, natural ecosystems upstream to provide them with clean water.

AIR: The atmosphere is a shared resource, and air pollution produced in one location can spread to other places. Without pollution controls and natural systems, such as healthy forests, air quality can decline.

LAND: Cities need trees and plants for many reasons. They moderate temperatures and can help prevent the "heat island" effect. They also improve air quality and mental health.

❷ Explain that when natural systems are disrupted, there are wide-ranging effects. Deforestation, wetland destruction, and pollution can cause damage both to physical infrastructure—through flooding, for example—and to public health. The rise of carbon dioxide in the atmosphere is causing disruptions as well, and promises to create many problems in the future, including rising temperatures, extreme storms, and coastal flooding. In all of these cases, working to maintain a healthy plant world will help prevent or mitigate many of these problems.

❸ Distribute the Natural Disruptive Scenario Activity Sheet. Guide students through the activity. Discuss where some of these problems are currently happening in your region. Have students complete the activity with online research to find out how humans are affected.

❹ **EXTENSION:** Work together as a class to consider solutions to the problems listed on the activity sheet and brainstorm ideas about what you may be able to do at your school. Have students use their scientific knowledge and technological creativity.

Lesson 2: Who's Who in Horticulture

GOAL: Students will learn about the many career paths of the green-collar industry.

TIME REQUIRED: 30 minutes

MATERIALS: Green-Collar Careers Research Activity Sheet

❶ Explain to students that there are many jobs and career paths in the green-collar industry. Some of the jobs let you spend most of your time outside, while others bring you in close contact with people and local organizations. All of the jobs have several things in common, including the ability to make serious contributions to physical and environmental health.

❷ Tell students that professionals in this field enjoy work that is both engaging and fulfilling. They perform valuable services for society while protecting the environment. Here is an example of what their day looks like:

- ✓ Growing food that is safe and nutritious and inspecting food for plant diseases.
- ✓ Preserving natural habitats by taking care of plants and maintaining landscapes.
- ✓ Imagining and designing landscapes, using knowledge of architecture and plant biology.
- ✓ Managing greenhouses and nurseries to create plants that will improve the environment.
- ✓ Researching plants to solve some of our biggest challenges, including diseases and invasive species.
- ✓ Working with robots and drones to help us develop and grow plants.

❸ Have students read the online student magazine to discover different jobs. The magazine describes many horticulture jobs and the responsibilities that come with them.

❹ Distribute the Green-Collar Careers Research Activity Sheet. Tell students to choose a job and research the role that the corresponding professional plays in society. Give students the option of contacting a person in the community who has that career in order to learn more specifics.

❺ **EXTENSION:** Have students create questions regarding their profession of choice. Hold a Trivia Challenge where students answer each other's questions. Consider establishing a job-shadowing program so students can learn from local horticulture professionals.

Plant Purpose and Placement: What Plants Can Do and How We Use Them

Students will learn the ways plants are important in our communities, country, and world.

GRADES

6–8

DURATION

30 minutes

Preinstructional Planning

OBJECTIVES

Students will:

- Learn about the uses and benefits of plants
- Review the basic steps of plant growth
- Understand the concept of native versus non-native plants

MATERIALS

- Plant Purposes Research Activity Sheet printable
- Computers for student use
- Whiteboard and markers

During Instruction

SET UP

Make copies of the Plant Purposes Research Activity Sheet reproducible for each student.

LESSON DIRECTIONS

Step 1: Tell students that plants perform countless roles in our communities, our country, and our world. Some of these roles are as simple as bringing food to our plates,

and some are as complex as ensuring the health of the entire planet.

Step 2: Have students brainstorm ways that plants are important to humans, animals, and the environment. Keep track of these by writing them on the board. The list will include providing safe and nutritious food, medicine, building materials, paper products, pigments, oxygen for breathing, atmospheric balance, physical and mental health, etc.

Step 3: Review with students the basic steps of plant growth. After a seed germinates, a sprout forms and begins to grow. Most plants need light, water, and food to create fuel; as it receives these, the plant develops. Over time, leaves (or similar structures) form and increase the production of energy for the plant. Eventually, the plant develops reproductive parts — in many cases, these are flowers. Next comes pollination, by which pollen is carried to the egg, usually with the help of a pollinator, such as an insect or a bird. Once this occurs, the egg is fertilized and can begin to mature into a seed. Eventually, these seeds will be dispersed, a process that can happen in many ways: some seeds are blown in the wind, some are spread by birds, etc. If the seed lands in a fertile environment, the entire process can begin anew.

Step 4: Introduce students to the subject of native plants if they are unfamiliar with them. These are plants that developed in a certain region and are therefore naturally suited to that particular soil and climate. For example, a saguaro cactus is native to the Arizona desert, but the sugar

maple is not; one needs warm, dry weather, and the other needs cool, wetter weather. Ask students to consider what could happen to native plants if the climate changes. If a region becomes too hot or cold for a plant species, it might not be able to adapt and survive. If a plant species dies in a certain region, the wildlife that depends on it will suffer as well.

Step 5: Distribute copies of the Plant Purposes Research Activity Sheet or direct students to access it online from student computers. Guide them through the instructions. Students will research native plants in their community and how they depend on climatic and soil conditions. If you happen to live in a diverse ecological region, consider limiting their area of focus to a particular park or location. Students will then choose a specific native plant, learn its characteristics, and draw it.

LESSON EXTENSION

Lead the class in a field study about native plants in your region. In advance, have students learn about 10 native plants that might be found in a local park or similar location. Next, travel to that park and perform a survey, “diagnosing” the native plants from a horticultural perspective. Students will identify the plants there, determine if they are healthy or struggling, and create a plan for improving the park to better support the soil quality, plant life, and community that surrounds the area.

NAME: _____

Natural Disruptive Scenarios

Disruptions to our natural habitats can have widespread effects. Not only can they destroy natural and human environments, but they can cause social instability as well. In this activity, you will think about several real-life situations where disruptions are causing major problems around the world—sometimes closer than you think.

Instructions: Draw a line matching the disruptions on the left with the corresponding effects on the right.

DISRUPTION

Invasive beetles—thriving in a warming climate—kill a huge forest.

Coastal wetlands are slowly destroyed by oil drilling operations.

Chemicals from agricultural fields drain into a river lacking vegetation on its banks.

Carbon dioxide from human activity causes rising temperatures.

Visitors destroy grasses and dunes on a beach, which is a vital habitat for endangered species.

EFFECTS

Species dependent on this ecosystem—birds, mammals, insects, and other plants—are forced to move or die.

Low-lying cities along the coast suffer massive flooding due to the lack of a buffer from the sea.

A “dead zone” is caused when a chemical imbalance causes an algal bloom, depriving fish species of oxygen.

Sea levels rise, causing coastal flooding. Plants and animals struggle to adapt to new temperatures.

Shorebird populations plummet, some of which are driven to the brink of extinction.

WHAT IS THE IMPACT?

For each of the scenarios above, identify a state where the disruption is happening and describe how it impacts human life.

SCENARIO	STATE	IMPACT ON HUMANS
Invasive beetles		
Destruction of wetlands		
Chemicals in rivers		
Excess of carbon dioxide		
Destruction of dunes		

NAME: _____

Green-Collar Career Tracker

The green-collar industry includes professionals on many career paths. Whether wielding a chain saw or wearing a lab coat, they spend their days working with plants to make the world healthier, safer, and more beautiful.

Read the article in the student magazine, *Horticulture Heroes*, to learn more about these professionals. In the table below, collect data from the article that will help you draw conclusions about green-collar professionals. Next draw conclusions about the impacts these professionals have on society and the environment.

JOB TITLE	JOB DESCRIPTION	IMPACT ON COMMUNITY OR WORLD
Arborists		
Botanists		
Drone Specialists		
Entrepreneurs		
Florists		
Groundskeepers		
Growers		
Horticulture Extension Agents		
Landscape Architects		
Researchers		
Urban Foresters		

NAME: _____

Plant Purpose: The Where, Why, and How of Native Plants

Native plants are plants that have developed in a certain region and are therefore naturally suited to that region's soil and climate. In this activity, you will explore native plants in your area and research how they contribute to the environment. Next you will choose a native plant and conduct a closer exploration of it.

RESEARCH

Conduct research on native plants in your region. Collect your research notes below.

What is the climate of your region?

How much rainfall does your region receive every year?

What kind of soil is available for plants in your region?

How do your native plants support local wildlife?

How do your native plants depend on local wildlife?

How do your native plants benefit people in the region?

How do your native plants improve the environment, in addition to supporting wildlife and people?

MY NATIVE PLANT

INSTRUCTIONS: Choose one of your many native plants to describe and draw. Provide the common name and Latin name of your plant. In your description, provide characteristics of your plant, including the climate and soil type it needs to survive. Next create an illustration of your plant.

Name:

Description:



BLOOM!



Green-Collar Careers

Horticulture is the art, science, technology, and business of plants. Look inside to explore this field and the careers it offers.

PLUS: Hear from professionals about what they do and why they love it.



Horticulture Heroes

Planting Goodness for Communities and for the Planet

Today's job market is an ever-changing place. Tomorrow's will be, too. But certain industries remain healthy and continue to create good jobs. One of these is the green-collar industry, aka horticulture. Plants are all around us, and passionate professionals are needed to keep it that way. This industry promises to provide careers for years to come.



Arborists help care for, protect, and maintain trees.

free—technology to produce food quickly and efficiently. These tech-savvy workers might spend their mornings reprogramming a bank of carefully timed lights and their afternoons delivering fresh food to local chefs. Other 21st-century green-collar pros might be drone specialists who know how to fly a drone to conduct a survey of a field or forest.

Preserving natural habitats is another line of work that will continue to employ green professionals for many years. These pros take care of trees, maintain our landscapes, and even sometimes build entire ecosystems from scratch. They have training in botany, plant sciences, and other similar fields. Forestry experts help manage forests, harvesting and replanting trees when needed. Grassland experts often work in prairies, conducting controlled burns to simulate the ecologically necessary effects of small wildfires. Arborists treat trees for invasive species, striving to save populations of hemlock, pine, and other threatened trees and the many animals and plants that rely on them.

Imagining and designing landscapes is done by professionals such as landscape architects and urban planners. These experts are trained in multiple disciplines. They understand how to integrate the plant world with the built-up world—providing not just beauty to our cities but also greenery that improves our mental health. Landscape architects know

Wait, What?!

Scientists are exploring the use of spinach to grow vascular tissue for human organ replacements.

Seriously?!

Cities with lots of green space may have less crime than cities without.

It takes a lot of work to put food on our tables, and a wide variety of professionals make that happen. Growers plant, tend, and harvest food in many settings, from large farms to cutting-edge greenhouses and even hydroponic labs. Food inspectors—both public and private—make sure food is clean and safe before it reaches our tables. Scientists work to develop plants that are more nutritious and more efficient and easier to grow than in the past.

Growing food is a hot area for innovation in the green-collar industry. Entrepreneurs are developing vertical farms that can be built in cities, delivering fresh food to local families and businesses. Some of these facilities rely on cutting-edge hydroponic—soil-



Botanists research plants to discover their properties and use what they learn to solve problems.

how to choose the right plants for any setting, balancing many priorities, such as beauty, budget, and water use. Urban planners work at a larger scale, using plants to make the city more functional. These experts understand that plants can reduce air pollution, make businesses more appealing to customers, and filter runoff water before it enters the sewer system.

Creating scenes of beauty using flowers is the work of florists. These professionals spend their days designing

flower arrangements of all kinds. Floriculturists, on the other hand, develop new breeds of flowers, using the latest technology. The work of these professionals improves society in many ways. Studies show that the presence of flowers improves people's mental health and can even help hospital patients recover faster.

Research in plant biology remains a crucial field of work as well. Botanists and other researchers spend their careers solving some of our biggest

problems, including how to fight plant diseases and hold off invasive species. Some even travel deep into the world's jungles to look for plants that might help cure human diseases, such as cancer.

The future is bright for anyone looking to work in the green-collar industry. Whether you want to help save the world—by feeding a growing population, fighting climate change, or protecting nature—or simply want to spend time outside working in the natural world, there is a career waiting for you.

Well, That Makes Sense:

Researchers have found that being around nature lowers stress levels and reduces anxiety. Hospital patients with access to greenery have shorter stays and lower heart rates.

Good to Know!

Urban greenery also helps businesses—improving property values, boosting occupancy rates in rental real estate, and helping to create jobs.



Landscape architects use their knowledge of plants and aesthetics to create both beautiful and functional spaces.

Breaking Ground

We talked to two young professionals who are keepin' it green in horticulture careers

Name: Nicole Sherry

Title: Head

Groundskeeper;
Baltimore Orioles

Education: B.A. degree
in agriculture (with a
minor in horticulture);
Applied Agricultural
Associates degree

Tell us about what you

do. My daily routine
usually starts with
observation, labor,
adapting, and learning
about grass and soil and weather.
It ends with the challenge of
facilitating a baseball game through
to the finish.

**What inspired you to work in
horticulture?**

The inspiration started by being
fascinated by how certain plants
could adapt to adverse conditions.
For instance, how certain seedpods
can only release their seeds to
establish new life from fire.

**What is your favorite thing about
your work?** I learn something new



about science, grass, and weather
every day. I also get to be a hidden
part of the baseball game by
providing an optimal surface for
our Orioles to play on.

**What was the best surprise you
encountered in the industry?**

The biggest surprise was that my
love for plant science and the game
of baseball could be combined.

**Why do you think horticultural
work is important for the world?**

Learning about plants can help
us in so many aspects of life—



nourishment, mental health, and
environmental health.

**What advice would you give to
someone thinking about entering
the profession?** Keep an open
mind that is always ready to adjust
because science is constantly
changing.

NICOLE SHERRY PHOTOS COURTESY OF TODD OLSZEWSKI, THE BALTIMORE ORIOLES © 2014.

In the Field!

Name: Josh Guy

Title: Trials Manager

Education: B.S. degree in Agricultural Sciences

Tell us about what you do. As Trials Manager for
Handpicked Vegetables, I work
to plan, grow, and test new
vegetable varieties. I get to test
both in the hydroponics lab and
outside in the garden.

**What is your favorite thing
about your work?** No two
days are exactly alike. I love the
ability to transition between
indoor and outdoor work.



**What was the best surprise you encountered in
the industry?** There is a sense of camaraderie and
cooperation. While competition can be fierce, the
level of respect and friendliness I've encountered is
unmatched.

**Why do you think horticultural
work is important for the
world?** Horticulture provides a
great deal of the diversity
in food options. A world without
the huge array of fruits and
vegetables would leave us
with some pretty boring
dinner plates.

JOSH GUY PHOTO COURTESY OF SEED YOUR FUTURE.

Name: _____ Grade: _____

School Name: _____

Teacher Name: _____

School Address: _____

Teacher Email:_____

School City/State/Zip: _____

BLOOM! Plant Mash-Up!

Plant scientists sometimes design new plants! They take two plants with special qualities and attempt to combine them into a third plant that has qualities of both. These new designs are called hybrids. Creating hybrids can make plants that are more disease-resistant, fruits that taste better, flowers that are more colorful, vegetables that are more nutritious, and provide additional benefits.

INSTRUCTIONS: Below are six different plants you might find across the United States. Choose two of them (or plants of your own choosing) and use them to create a hybrid with new characteristics.



Milkweed: main food source for the threatened monarch butterfly; appealing to many pollinators; hypoallergenic fibers useful



Coneflower:
attracts birds
and pollinators;
blooms in late
summer and fall;
can help treat a
cold



Garlic: often used to boost the body's immune system, helping prevent and reduce some illnesses; popular food ingredient



Marigold: beautiful, fragrant, hardy, and edible flowers; long-lasting, easy-to-grow blooms



Aloe vera: sap is healing to the skin; needs warm weather



Apple trees:
produce tasty
and healthy
fruit; attractive
flowering tree;
popular home for
birds

Name the two plants you are combining:

Illustrate your hybrid:

In the space below:

✓ Describe the features of your hybrid

✓ Explain how your hybrid will benefit others

[illegible]



Horticulture offers countless careers. Check out these real-life professionals who spend their days working with plants and keeping the world green.

Landscape Architect

Designing outdoor spaces for homes, cities, and businesses is the work of a landscape architect. These licensed pros are trained in horticulture, architectural practices, and urban planning.



Florist

Bringing beauty and delight to people is the work of florists. These pros know their flowers and spend their days designing and constructing arrangements for countless occasions.



Drone Specialist

The green-collar industry is on the cutting edge of technology. Among the many professionals working in high tech are drone specialists. These pilots fly drones to conduct surveys of fields and forests.



PHOTO COURTESY OF CHICAGO BOTANIC GARDEN



Urban Forester

Cities need trees, but those trees need more maintenance than the ones in a forest. The urban forester might work for a city government, a utility company, or a tree service company keeping trees trimmed and healthy.

PHOTO COURTESY OF NORTH CAROLINA STATE UNIVERSITY



Extension Agent

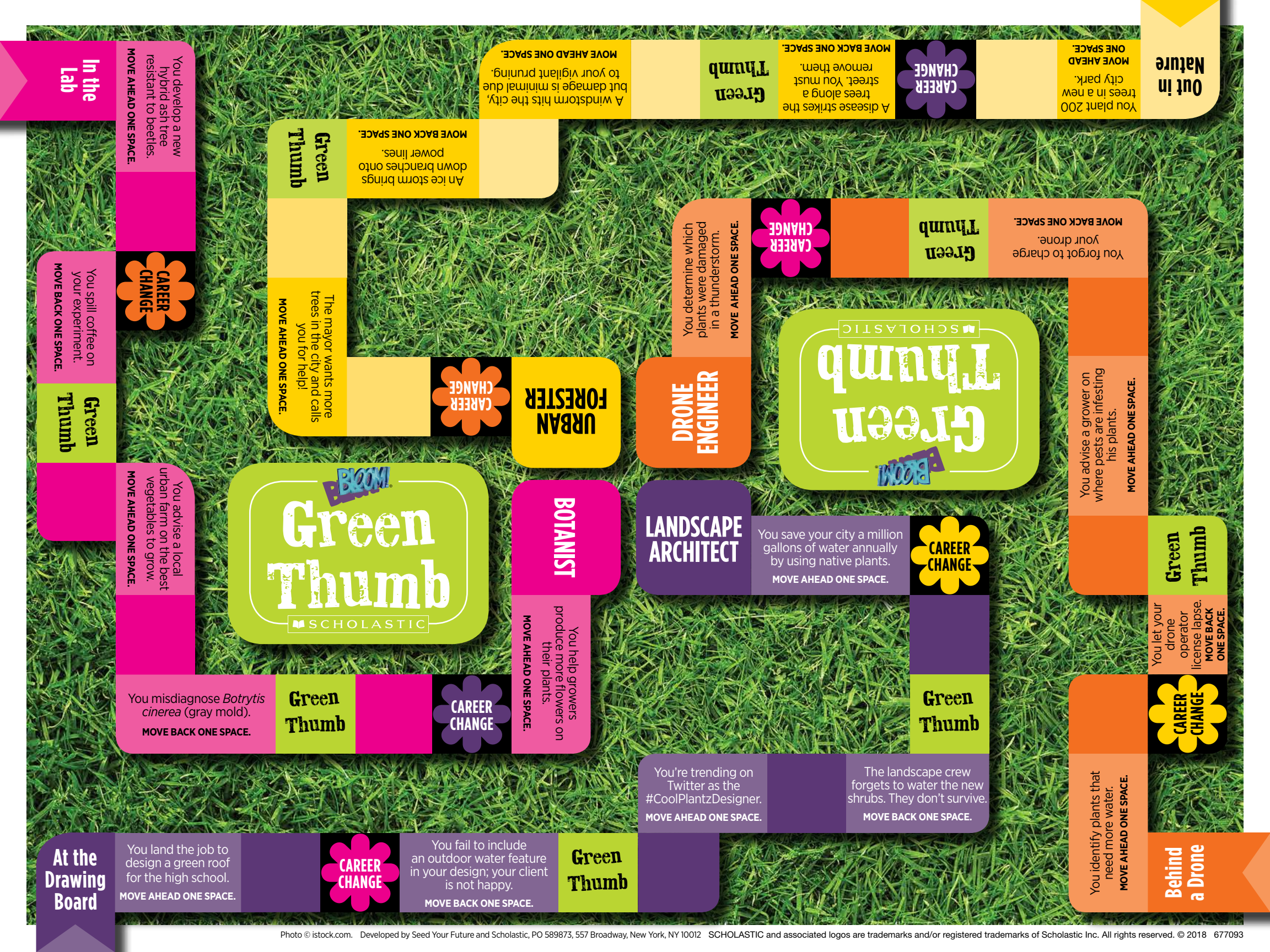
An expert and adviser, the extension agent helps people by translating the latest horticulture research into usable information for home gardeners and business owners.

PHOTO COURTESY OF LONGWOOD GARDENS



Botanist

The ultimate expert on plant biology, a botanist is dedicated to examining the power of plants. Botanists might spend their days teaching, conducting research on plants, or advising businesses on horticulture practices.



Out in Nature

MOVE AHEAD ONE SPACE.
You plant 200 trees in a new city park.

CAREER CHANGE

MOVE BACK ONE SPACE.
A disease strikes the trees along a street. You must remove them.

Green Thumb

MOVE AHEAD ONE SPACE.
A windstorm hits the city, but damage is minimal due to your vigilant pruning.

Green Thumb

MOVE BACK ONE SPACE.
An ice storm brings down branches onto power lines.

MOVE AHEAD ONE SPACE.
The mayor wants more trees in the city and calls you for help!

CAREER CHANGE

URBAN FORESTER

DRONE ENGINEER

MOVE AHEAD ONE SPACE.
You determine which plants were damaged in a thunderstorm.

CAREER CHANGE

Green Thumb

MOVE BACK ONE SPACE.
You forgot to charge your drone.

MOVE AHEAD ONE SPACE.
You advise a grower on where pests are infesting his plants.

Green Thumb

MOVE BACK ONE SPACE.
You let your drone operator license lapse.

CAREER CHANGE

MOVE AHEAD ONE SPACE.
You identify plants that need more water.

Behind a Drone

Green Thumb

SCHOLASTIC

BLOOM

LANDSCAPE ARCHITECT

MOVE AHEAD ONE SPACE.
You save your city a million gallons of water annually by using native plants.

CAREER CHANGE

Green Thumb

MOVE AHEAD ONE SPACE.
You're trending on Twitter as the #CoolPlantzDesigner.

MOVE BACK ONE SPACE.
The landscape crew forgets to water the new shrubs. They don't survive.

Green Thumb

MOVE BACK ONE SPACE.
You fail to include an outdoor water feature in your design; your client is not happy.

CAREER CHANGE

MOVE AHEAD ONE SPACE.
You land the job to design a green roof for the high school.

At the Drawing Board

Green Thumb

MOVE BACK ONE SPACE.
You misdiagnose *Botrytis cinerea* (gray mold).

CAREER CHANGE

MOVE AHEAD ONE SPACE.
You help growers produce more flowers on their plants.

BOTANIST

Green Thumb

BLOOM

Green Thumb

MOVE BACK ONE SPACE.
You spill coffee on your experiment.

CAREER CHANGE

MOVE AHEAD ONE SPACE.
You advise a local urban farm on the best vegetables to grow.

In the Lab

MOVE AHEAD ONE SPACE.
You develop a new hybrid ash tree resistant to beetles.



Roughly how many plant species are there on earth? (Get within 50,000 species.)

Answer: 400,000



A scientist who studies plant biology is called a _____.
A. botanist B. zoologist
C. physicist

Answer: A. botanist



Plants play a major role in keeping the atmosphere in balance by absorbing which gas?

Answer: carbon dioxide



Horticulture is the art, science, technology, and business of _____.
A. growing plants

Answer: growing plants



Which part of a plant performs most of its photosynthesis?
A. roots B. stem C. leaf

Answer: C. leaf



Plants help people breathe by releasing which gas?

Answer: oxygen



Plants hold soil in place, helping to prevent which phenomenon?

Answer: erosion



Knowing what an arborist does, what do you think is the main feature of an arboretum?

Answer: trees



The pistil and stamen are contained in which part of a plant?
A. seed B. flower C. stem

Answer: B. flower



What is the process in which plants convert light into energy?
A. sprouting B. pollination
C. photosynthesis

Answer: C. photosynthesis



A plant that completes its life cycle in one year or less is called a(n) _____.
A. annual B. perennial C. conifer

Answer: A. annual



A botanical garden that is open year-round will likely use what kind of building to grow plants in the winter?

Answer: greenhouse



A landscape architect trying to choose the right tree for rocky soil should consult which professional?

Answer: arborist



One of the best ways to reduce the amount of carbon dioxide in the atmosphere is to ensure that the planet has healthy _____.
A. forests

Answer: forests



Lining waterways with plants helps _____ water pollution.
A. add to B. reduce C. remove

Answer: B. reduce



Urban foresters often work closely with utility companies because trees sometimes grow into _____.
A. power lines

Answer: power lines



The part of a plant that is usually belowground is known as the _____.
A. root

Answer: root



A plant that is not native to a region and causes ecological or economical harm is known as a(n) _____.
A. invasive species

Answer: invasive species



Board Game Instructions

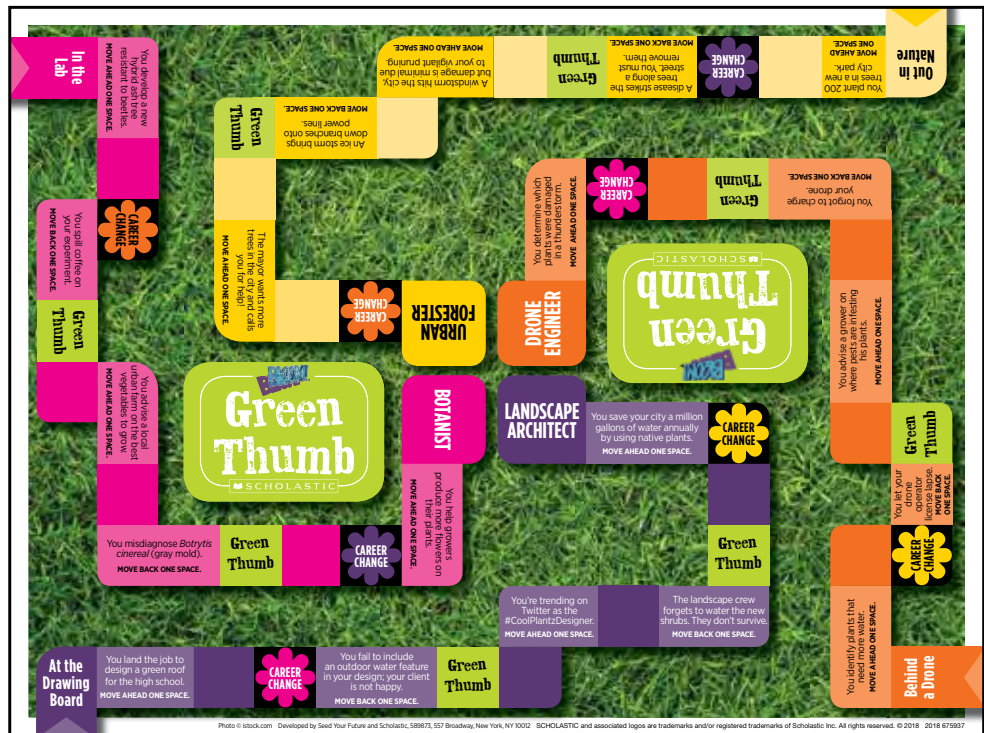
HOW TO PLAY

Aim: Reach one of the career tiles at the center of the board. The first person to land a job wins!

Players: 2-4

Materials Required:

- Game board
- Printable trivia cards
- 1 die
- Different place markers for each player (e.g., paper clips, coins, buttons, etc.)



GETTING SET UP

① Each player begins at one of the four starting spots: **In the Lab**, **Out in Nature**, **At the Drawing Board**, or **Behind a Drone**.

② Each player rolls the die one time. The player with the highest roll goes first and play continues clockwise.

③ The first player rolls the die and moves her place marker the corresponding number of spaces.

GAME PLAY

① If the player lands on a blank space, she takes no action. The next player rolls.

② If the player lands on a positive action or circumstance related to her career path, she **moves ahead one space**. Once she has moved, the next player rolls.

③ If the player lands on a negative action or circumstance related to her career path, she **moves backward one space**. Once she has moved, the next player rolls.

④ If the player lands on a **Green**

Thumb, the player to the right will pick up a **Green Thumb** trivia card from the pile and ask the trivia question. If the player gets the question right, she moves forward one space. If the player gets it wrong, she takes no action. After the question is asked, the trivia card can be placed in a discard pile. Once the player has answered the question and moved (if necessary), the next player rolls.

⑤ If the player lands on a **Career Change**, she moves

her place marker to the starting point that corresponds to the color of the Career Change flower she landed on. For example, if the player lands on a pink Career Change flower, she moves her place marker to the pink starting tile: **In the Lab**.

MOVE TO WIN

Play continues until one person reaches one of the four **career tiles**: Drone Engineer, Landscape Architect, Botanist, or Urban Forester.