



SELF-GUIDED FIELD TRIP

Educator Guide Grades K-2

Self-guided field trips allow teachers to use New England Botanic Garden as a place of learning and exploration. This field trip does not include educator led programs from Teacher Naturalist staff. Your self-guided visit will be led entirely by your teachers and chaperones. Upon booking you will be provided with an activity book for students to use at the Garden. Try the optional pre- and post-visit activities on the following pages to extend your learning experience before and after your trip. Please use this guide to plan your visit and prepare your students and chaperones for a day at the Garden. Enjoy your visit to New England Botanic Garden at Tower Hill!

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CONTACT INFORMATION

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GARDEN DISCOVERIES

K-2 Self-Guided Activity Book

Thank you for booking a self-guided Garden Discoveries program at New England Botanic Garden. Each self-guided group is given access to our student activity books that can be printed at school and used during your field trip to engage students in garden topics that connect to what they are learning in school.

OVERVIEW

When registering for a self-guided field trip educators will be given access to our 10-page student activity book that includes vocabulary, discussion questions, games, drawing activities, scavenger hunts, and more! If you choose to use our Garden Discoveries activity book, your class will track the weather, observe plants, search for animal habitats, and study insects up close. All content in the activity book connects to Massachusetts state standards. Educators will be given the booklets in PDF form after they register for their self-guided field trip and will be able to print them for their students to use onsite. We recommend bringing large clipboards, pencils, and coloring supplies for your students on the day of your trip.

STANDARDS

2016 MASSACHUSETTS SCIENCE AND TECHNOLOGY/ENGINEERING CURRICULUM FRAMEWORK

KINDERGARTEN

K-LS1-1. Observe and communicate that animals (even humans) and plants need food, water, and air to survive. Animals get food from plants and other animals. Plants make their own food and need light to live and grow.

K-LS1-2. Recognize that all plants and animals grow and change over time.

K-ESS3-1. Obtain and use information about weather forecasting to prepare for, and respond to, different types of local weather.

FIRST GRADE

1-LS1-1. Use evidence to explain (a) different animals use their body parts and senses in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water, and air (b) plants have roots, stems, leaves, flowers, and fruits that are used to take in water, air, and other nutrients to produce food for the plant.

1-LS3-1. Use information from observations (first-hand or from media) to identify similarities and differences individual plants and animals of the same kind.

SECOND GRADE

2-LS4-1. Use texts, media, or local environments to observe and compare (a) different kinds of living things in an area, and (b) differences in the kinds of living things living in different types of areas.

PLANNING YOUR VISIT

Review this guide for information on how to register your group for a self-guided program at New England Botanic Garden. Read on for FAQs and general information about what to expect and how to ready your class and chaperones.

ABOUT

Self-guided field trips offer an opportunity for your group to explore at their own pace and use our student activity books to engage in outdoor nature investigations. The student activity books incorporate fun games, activities, and discussion topics for your class, while also connecting to state standards.

SCHEDULING YOUR VISIT

PAYMENT

Self-guided groups rates are \$9 per student and a maximum of one chaperone for every 5 students is admitted free of charge. Additional chaperones will receive a group rate discount of \$18/adult. Payment may be made in advance, on the day of the program, or within one month of the program in the form of cash, credit card, or check. Please make all checks payable to New England Botanic Garden at Tower Hill.

CHANGES & CANCELATIONS

Please contact us as soon as possible if you would like to postpone, reschedule, or cancel your self-guided visit. A full refund will be made if the cancellation is requested at least two weeks before the date of the program. If extenuating circumstances force the Garden to close for the day we will contact you immediately and reschedule your visit. If there is a cancellation due to snow, we will work with you to reschedule your visit within the school year. If your group is running late please contact us at 508.869.6111 and update us with your new arrival time.

BEFORE ARRIVAL

Share the Chaperone Guide with your chaperones and review our garden expectations policy with students prior to arrival. Please prepare your students for the days weather and encourage them to dress for the weather and wear close-toed shoes if possible.

UPON ARRIVAL

Buses should unload at the garden entrance using the drop-off lane. Buses may park in the designated bus parking spaces until returning to the drop-off lane for pick up. Please see bus parking map on page 9. If you plan to pay on the day of your visit please send the group leader into the Visitor Center, check in with accurate group numbers, pay balance, and collect admission stickers for adults. One of our educators will greet your bus upon arrival and direct your students into the garden.

FREQUENTLY ASKED QUESTIONS

How many students can I bring?

Self-guided field trips are limited to 150 students for one day. If your group is larger than 150 we ask that you book your visit over two days. At the time of booking please provide an estimated number of students, chaperones, and teachers that will be attending.

Can we eat lunch at the Garden?

Picnicking is allowed in any of the mowed lawn areas or at the picnic tables under the pavilion in the Ramble children's garden. We ask that you follow our pack in, pack out policy for large groups. Please bring a trash bag and dispose of your trash back at school or ask students to pack trash back in lunch bags. We appreciate your help keeping our garden spaces clean. We have a cafe on site, groups of 10 or more must order in advance. Please let us know if you wish to order through the cafe.



Is the garden ADA accessible?

The formal gardens, Visitor Center, and the Ramble (children's garden) are ADA accessible (all marked in blue on the map). The forest and meadow trails at the Garden are made of natural materials; the terrain is uneven and steep in certain areas. If you have students in your group that require mobility assistance please share this information with our staff when you register for your trip.



Can my group visit the gift shop?

Absolutely, if you have a group of more than 10 students please let us know when your group plans to visit the gift shop during the day so our staff can be prepared to welcome your large group. For large groups we recommend sending your group into the gift shop with an adult in groups of 8 students or less.

How should students dress?

We recommend closed-toed and slip resistant shoes or boots in rainy, muddy, or snowy conditions. Please note the forest trails are often muddy after a rain storm. Please bring insect and tick repellent or apply before you leave school. Students should also bring water, hats, sunscreen, or rain or winter coats depending on the weather.



What happens in the case of inclement weather?

Self-guided field trips are held rain or shine, please have students dress appropriately. We follow the Boylston school schedule. If the Garden is closed or your school is closed due to weather we will work with you to reschedule your visit within the school year if possible.

CLASSROOM TEACHER GUIDE & CHECKLIST

To take advantage of all the garden has to offer, please take the time to familiarize yourself with the garden maps and expectations. We are a living plant museum and we thank you in advance for helping to protect our collection, both inside our conservatories and in our outdoor gardens. Educators are welcome to tour the gardens and trails before your scheduled program. Show your MTA card at the information desk and receive FREE general admission!

GARDEN EXPECTATIONS

- Please stay on the paths, trails, or lawns to ensure that all plants and animals are left undisturbed.
- Please do not pick any plants or climb the garden trees.
- Please keep the garden clean and carry out all lunch trash with you.
- Shirt and shoes are required at all times.
- Please remember the garden is a shared space. Do your best to share pathways and make room for other visitors and vehicles.
- Please use your walking feet in the garden to ensure the safety of all other visitors, the plants, and yourselves.
- Students should be with a chaperone at all times and should not be exploring the garden on their own.
- Recreational equipment (frisbees, balls, etc.) should be left at home or at school.

- Register for your field trip via phone or email.
- Review the Self-Guided Field Trip Educator Guide.
- Review the field trip schedule and go over expectations with students and chaperones. Be sure to stress the importance of proper attire.
- Pack water, sunscreen, insect repellent, first aid kit, lunches, and trash bags (if staying for lunch), extra chaperone guides, extra garden maps, student activity books, clipboards, pencils, and coloring supplies.
- Print the Chaperone Guide and garden maps on the following page, and distribute to teachers and chaperones who will be attending.
- Notify chaperones of the designated meeting location after the program ends.
- Review the Bus Parking Map on page 9 and discuss with your bus driver upon arrival. Unload bus in the drop-off lane in front of the garden entrance.
- Present your confirmation letter and updated student and chaperone counts to a visitor services staff member in the Visitor Center and complete payment if prepared to do so. Visitor Services staff will give you your admission stickers to distribute to your chaperones.
- Enjoy your field trip experience and share your feedback or student work with us after the program at youtheducation@nebg.org.

CHAPERONE GUIDE

Print this guide for chaperones to use on the day of the field trip to help them keep track of their group, responsibilities, and expectations.

CHAPERONE RESPONSIBILITIES

- Know students in your group by name and keep group together and within view at all times.
- Help students follow garden expectations and maintain group safety.
- Encourage students to participate in group activities and fully explore the gardens.
- Familiarize yourself with the garden map and note where the restrooms are.
- Know your itinerary, including meet-up locations, garden shop visit plans, lunch, and departure times.
- Come prepared to explore outdoors, rain or shine.
- Be a role model and have fun!

GARDEN EXPECTATIONS

- Please stay on the paths or lawns and leave trees, plants, flowers, and wildlife undisturbed so that others may enjoy them too.
- Please have students stay with their group leader at all times.
- Enjoy your lunch on any of our mowed lawn areas or at the pavilion in the Ramble garden, being sure to keep paths clear for other visitors.
- Please carry out what you carry in, including trash.
- Please respect the tranquility of other guests and remember the garden is a shared space.
- Recreational equipment (frisbees, balls, etc.) should be left at home or at school.

MY GROUP LIST

Student names

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

Meet-up Location:

Starting Location:

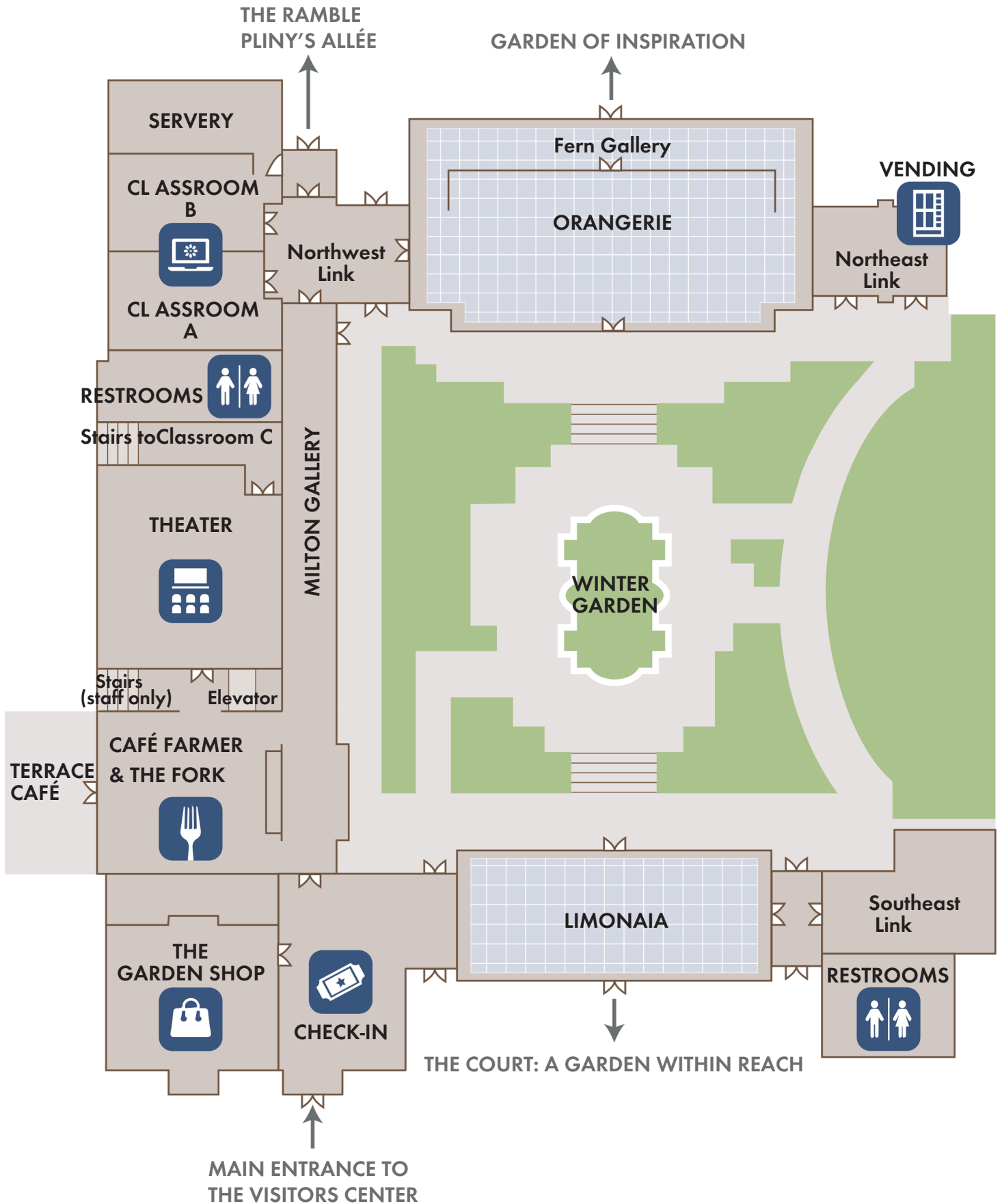
Departure Time:

GARDEN MAP



VISITORS CENTER

STODDARD EDUCATION CENTER



BUS PARKING MAP

If you arrive before 10am, the entrance gate will be closed, it will automatically open upon approach. When you enter the Garden follow signs for "buses", pull up and over in the bus drop-off lane to unload. The bus will then follow the "bus parking" signs that will direct them to park in the bus parking spots at the far end of the parking lot until pick-up.



PRE-VISIT ACTIVITY GUIDE

The following optional pre-visit activities are designed to support the understanding of concepts that will be addressed during the Garden Discoveries self-guided field trip.

SENSATIONAL SENSES

Students will compare an indoor and outdoor area using their 5 senses.

Materials

Tape	Peeled crayons
Paper	Pencil



Review the 5 senses (touch, smell, taste, sight, and hearing) with the class. Have students practice using their senses indoors by describing their classroom. Students can write down observations about colors, smells, sounds, and how items feel. Head outdoors and repeat this activity. Create a Venn diagram to compare and contrast indoor and outdoor observations.

Encourage students to find leaves and make more observations. Students can then pair up to discuss similarities and differences between leaves. **Critical thinking question:** Why do leaves look, feel, or smell different?

Bark Rubbing:

- Choose one tree or more for your class to use for bark rubbing. Try to find different species!
- Demonstrate how to do a bark rubbing by holding a crayon sideways and rubbing it back and forth over the bark.
- Wrap a large sheet of paper around a tree and tape it together, making sure it is low enough for students to reach.
- Hand out paperless crayons and invite students to do their bark rubbing.
- Encourage them to describe what happens and what is making the patterns.

PATTERNS ARE EVERYWHERE!

Students will discover the patterns and colors of the natural world by studying animals and plants and designing their own patterned plant.



Materials

Beads	Optional:
Pipe cleaner	Animal pictures
	Pattern print-outs

Discuss what a pattern is and ask if students have seen patterns in nature or on animals. Show examples of cheetahs, snakes, moths, etc. Patterns and colors are really important to the animal and plant world. Patterns help animals camouflage, send warning signs, and find mates. For plants, color and patterns are crucial to attracting pollinators.

Snake Patterns:

- Hand out a cup of colorful beads and a pipe cleaner to each student.
- Students will create their own unique pattern on their pipe cleaner snake.
- **Optional:** Print out color patterns for children to follow and recreate using the beads.
- Ask students to explain why they chose this pattern or if it helps the snake survive.

Head outside for a nature walk to find colors and patterns. Play "I Spy" along the way to see if the students can find certain colors or hand out color cards for students to find a match for. Discuss why certain colors were found and why others were not. These answers may be based on seasons, day or night, or whether a species wants to hide or attract attention.

For further discussion, show a picture of a rainbow, review each color, and give students pictures of animals. Ask students to name the animal and match it to a color on the rainbow. Discuss why they might look like that color.

POST-VISIT ACTIVITY GUIDE

The following optional post-visit activities are designed to support the understanding of concepts that will be addressed during the Garden Discoveries self-guided field trip.

GARDEN TALES

Students will write a story using the data they collected with the "My Garden Visit" handout.

Materials

Pencil	My Garden Visit handout
Paper	Coloring supplies

Print the "My Garden Visit" handout and pass out to your students. Review the worksheet and give students time to reflect individually and then as a class about the list of observations they made on their field trip. Was there an observation that was really memorable for any of the students?

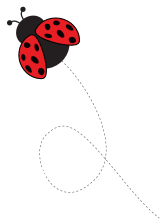
Explain that students should write a sentence or draw a picture in each box to collect data on what they saw, smelled, heard, touch, and tasted at the garden. Encourage students to share their observations and tell a story about their experience at the Garden.

Optional: Challenge students to write an original story and draw pictures based on the observations they made during their field trip to the Garden. Combine all the short stories into a class book that can be shared with friends and family members of the students.



INCREDIBLE INSECTS

Students will learn about insects at the garden and their importance to plants by making a craft and creating their own insect.



Materials

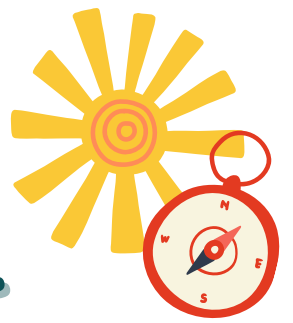
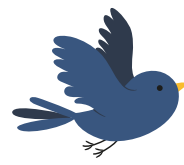
Cupcake liners	Markers
Pipe cleaners	Googly eyes
Glue	Popsicle sticks
	Black paper

Lead a discussion about how insects are very beneficial to our garden because they pollinate flowers, eat pests, and keep the soil healthy. Plants cannot grow without them. Ask: "What are some insects that you saw at the garden? Were there some bugs that were not insects, like worms, snails, spiders, etc?"

Creepy Crawly Craft

- Butterfly:
 - Accordion fold two cupcake liners (fold an edge of the liner and then flip it over and fold another section, continue to the end).
 - Pinch the two cupcake liners together in the middle so that it looks like four wings.
 - Fold a pipe-cleaner around the liners and twist the top like a bread tie to create the body and two antennae.
- Ladybug:
 - Fold two red cupcake liners in half.
 - Draw black dots on the folded liners.
 - Cut out small black circles of construction paper to create the head.
 - Glue the head and cupcake liner wings onto a popsicle stick.
 - Glue googly eyes to the face and two pipe cleaner antennae to the back of the head.

Show pictures of insects throughout their lifecycle stages (egg to adult) and explain that many insects change life stages through the process of metamorphosis. Have students compare, act out, or draw the lifecycle stages of known insects.



MY GARDEN VISIT

I saw ...

I smelled ...

I heard ...

I touched ...

I tasted ...