



Explore the Arnold Arboretum on this fun-filled learning adventure. Walk through the Arboretum and use your senses to discover and observe the living and non-living things found here.

Standards: PreK-LS1-1(MA), PreK-LS1-3(MA), PreK-LS2-1

What's Included

Self-guided field trip program overview including tips on how to navigate the Arboretum, pre/post visit activities, teacher background information and suggested resources for continued learning.

A **guiding map** with suggested locations, timing, and guiding questions. Print one per chaperone or group. Locations of the map are suggested; you are welcome to explore any part of the Arboretum.

A **Know Before You Go** sheet with Arboretum rules and detailed landscape map. Print one for all chaperones.

Seasonal scavenger hunts. Select the season that reflects the time of year you are visiting. Print one copy per student.

A **Living vs Non-Living student recording sheet.** Print one per student on the reverse side of the scavenger hunt sheet.

A **post-visit activity page** for students to complete back in the classroom and reflect on a favorite thing seen at the Arboretum.

Navigating the Arboretum

Pathways – This visit can be done completely by staying on the main paved roads labeled Meadow Road and Bussey Hill Road on your map. There are mulch and gravel paths off this main road that you are welcome to use. Please note that the mulch and gravel are not accessible for wheelchair users and can be difficult for strollers. Plan your path accordingly.

Timing – The Arboretum is a big place, it takes time to walk from spot to spot. Each stop on the guiding map includes suggested time frames for investigation.

Bathrooms & Water Fountains – There are bathrooms inside the Visitor Center in the Hunnewell Building. There are portable restrooms in a few places throughout the landscape, they are labeled on your map. Water fountains are placed in various locations, though they are shut down by the city mid-October through mid-April.

Pre-Visit

Guiding Questions:

- What is an Arboretum?
- What do we think we will see at the Arboretum?
- Are plants living or non-living things? How can we tell?

Activity:

Introduce what an Arboretum is and emphasize that we are filled with all sorts of living things, especially plants. Act out the life cycle of a plant starting in a crouched position as a seed, slowly standing up to grow your stem, reaching out to be leaves. Then as a class, make a list of all the things you think you might see during the visit. Challenge students to name some non-living things they might see.

Post-Visit

Wrap Up Questions:

- What did we see, hear, smell, and touch during our visit to the Arboretum?
- What living and non-living things did we see?

Activity:

Using the “My Favorite Thing Was” worksheet, have students draw a favorite thing seen at the Arboretum during their visit. Encourage students to add non-living components in the context of their favorite thing. For example, a stone wall, water or metal stake.

Additional Learning

[What's Alive?](#) by Kathleen Zoehfeld

[Pond Walk](#) by Nancy Elizabeth Wallace

[Raindrops Roll](#) by April Pulley Sayre

Teacher Background Information

Content

When young children begin to explore what makes something a living thing, and what makes something else non-living, there will be many areas of confusion. Children have a rich imagination, limited experience with the natural world, and are just beginning to develop logical thinking. They might come to incorrect conclusions, such as:

- A bird moves and makes noise, and so does a car; both must be living things.
- A seed doesn't do anything (seemingly), but a young plant changes and grows. So, a seed must be non-living.
- A leaf that has fallen off a tree is dead, which also means not alive. This must mean dead leaves are non-living things.
- People need water to live, so water must be a living thing too.
- Wind can be strong, angry, or gentle; wind must be a living thing.

It is important for young children to understand that Living Things:

1. Need water, food, air, space or shelter, and light (for most plants).
2. Grow, develop, change, and die.
3. Are able to reproduce.

To help young children think through whether something is living or non-living, ask these questions:

"Does it eat or need nutrients to survive?"

"Can it make babies or more of itself?"

"Does it grow and change?"

"Can it die?"

"Did it come from a living thing?"

Phrases such as "once living" and "never living" can further help children differentiate between living and non-living. Older children may be introduced to the word "dormant" to describe seeds or trees in winter.

Key Vocabulary

Living things: organisms that are alive – they grow, need energy, breathe and reproduce to make more of their kind. Living things have senses, move on their own, and respond to their environment.

Once-Living: a living thing that has died; useful as a way to differentiate from non-living

Non-Living: a thing that has never been alive and won't die; ex: light, water, air, rocks.

Never-Living: a thing that has never been alive and won't die; ex: light, water, air, rocks. This is often easier for children to understand.

Dormant: a living thing that is in a state of rest or inactivity, with potential to begin growing again.



Suggested Location 1 - 15 min
EVERYWHERE

Before venturing into the landscape, look at the scavenger hunt and identify what you are looking for. What senses do we need to use to find these things? Are they living or non-living? How do we know?

Suggested Location 2 - 15 min
MAGNOLIAS

Look around you, what critters can you find? Look up at the tops of trees, and in the sky, don't forget to search down at the ground. Can you hear birds or spot birds nests?

Suggested Location 3 - 20 min
LINDENS/CORK TREES

Gently touch the leaves and trunks of trees. What textures can you feel? Do the tops and bottoms of the leaves feel the same? Use your body to mimic the shapes of the trees.

Suggested Location 4 - 15 min
MAPLES

Use your eyes, what colors do you see? You might notice bright bold colors or soft muted colors. Is there one shade of each color, or do you see dark and light versions of the same color?

Suggested Location 5 - 30 min
BRADLEY ROSACEOUS COLLECTION

As you enter this collection, you'll notice the ponds. Find a spot near the pond at a safe distance and close your eyes. What sounds can you hear? You might hear birds chirping, frogs croaking, or the wind blowing.



Remember! Be respectful of other groups and visitors enjoying the Arboretum. Please help us take care of our plants by not stepping in plant beds, pulling leaves or flowers off of plants, and not climbing trees.



General Arboretum Rules

- Be respectful of other visitors enjoying the space.
- To preserve the health and beauty of the trees, please **do not** pick, pull, or climb on the trees. You **may** gently touch plant parts to feel texture and smell scents. You **may** collect plant material that has fallen to the ground.
- Walking in plant beds or mulched areas is **not** allowed. Be aware of what you are stepping on.
- Balls, frisbees, and other sports equipment are **not** allowed.

Arrival and Parking

Buses

- Buses are not allowed to enter the gates into the landscape or drive through unless you've been given permission in advance by youth education staff.
- When arriving, drive past the gates and unload students in the designated bus drop-off zone along Arborway. Buses can park further down Arborway or on Flora Way. (see map on reverse)
- If you need special accommodation, please contact us at least a week before your visit: childrensed@arnarb.harvard.edu

Public Transportation

- The Arboretum is easily accessible from the Forest Hills T stop, and by Bus #35, #38, #39, and #51.

Visitor Center and Restrooms

The Visitor Center

- Open 10:00am – 4:00pm daily, located inside the Hunnewell Building.
- Here you will find a scale model of the Arboretum, seasonal highlight displays, and friendly staff who can answer questions.
- If you would like to bring students inside, plan to enter in staggered groups of 10 or less, always accompanied by a supervising adult using indoor voices.

Bathrooms

- Open 10:00am - 4:00pm daily, located inside the Hunnewell Building.
- There are portable restrooms along Meadow Road, near the Dana Greenhouses, on Hemlock Hill Road, and on Peters Hill.

Picnicking

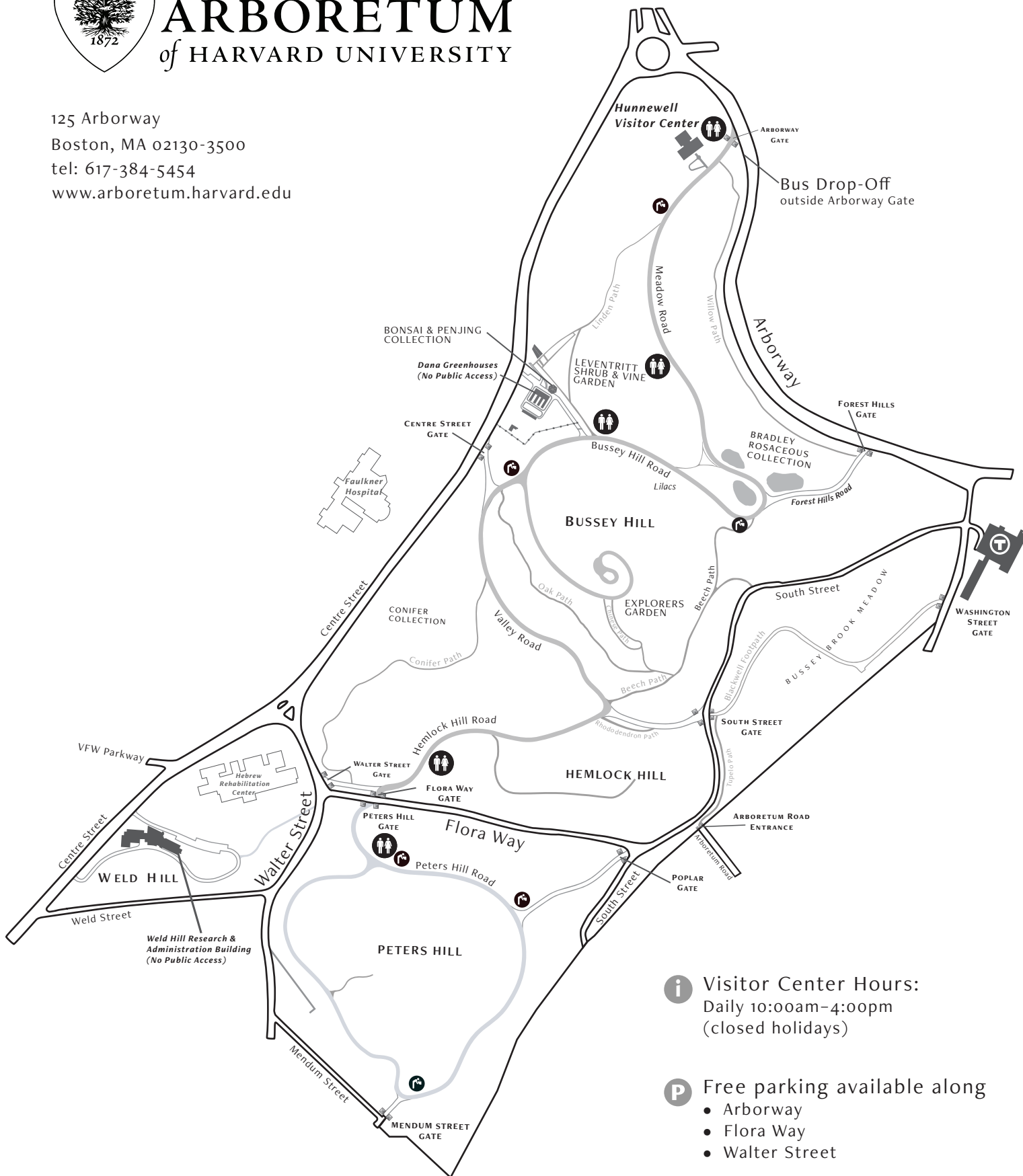
- School groups may picnic on the grounds, as a special exception to our no-picnicking policy.
- Groups must carry out all trash.
- We do not have storage for lunches, nor do we have any indoor space in case of rain.



The ARNOLD ARBORETUM

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ARBORETUM AUTUMN SCAVENGER HUNT

HOW MANY OF THESE AUTUMN TREASURES CAN YOU FIND?



An Acorn
With its Cap



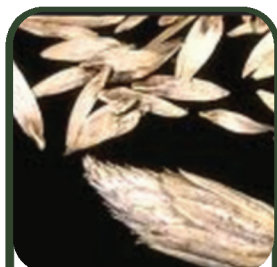
Red Leaves



Magnolia
Seeds



Maple Seed



Tulip Tree Seeds



Fallen Pine
Needles



Squirrel



Lichen



Yellow Leaves



Multi-
Colored Tree



A Cone



Brown Leaves

Use your other senses to find the following:

TOUCH:

Dry leaves
Smooth tree bark
Spiky cones
Furry flower buds

LISTEN FOR:

Acorns falling
Squirrels scurrying
Leaves crunching
Wind rustling branches

SMELL:

Crisp cool air
Damp soil
Wet leaf litter
Katsura tree's sugary smell

ARBORETUM WINTER SCAVENGER HUNT

HOW MANY OF THESE WINTER TREASURES CAN YOU FIND?



Red Berries



Animal Tracks in Snow/Mud



Cones



Red Cardinal



Bird's Nest



Squirrel's Nest



Icicles



Furry Magnolia Buds



A Few Leaves On Trees



Squirrel



Conifer Needles



Brown Leaves

Use your other senses to find the following:

TOUCH:

Rough tree bark
Smooth tree bark
Cold rocks
Wet leaves

LISTEN FOR:

The sound of scampering squirrels
Wind rustling through branches
Birds chirping
Snow crunching or footsteps

SMELL:

A conifer tree
A handful of dried up leaves
Tree bark
Mud/soil

ARBORETUM SPRING SCAVENGER HUNT

HOW MANY OF THESE SPRING TREASURES CAN YOU FIND?



Magnolia Blossoms



Robin



Bulbs:
Snowdrop



Emerging Leaves



Lesser Celandine
(Invasive)



Red-Winged Blackbird



Bees



Geese



Tree Buds



Pussy Willow



Wild Onion



Puddles

Use your other senses to find the following:

TOUCH:

A rock warmed in the sun

Wet grass

Moss

Sticky mud

LISTEN FOR:

Birds chirping

Rain falling

Buzzing flying insects

Footfalls through pine needles or leaves

SMELL:

Wet soil

Freshly cut grass

Fragrant flower

Rain

ARBORETUM SUMMER SCAVENGER HUNT

HOW MANY OF THESE SUMMER TREASURES CAN YOU FIND?



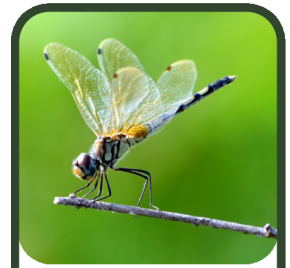
Large Tulip Tree Leaf



Heart Shaped Leaf



Stewartia Flower



Dragonfly



Honeysuckle



Blue Jay



Bees



Roses



Turtles



Fruit forming in trees



Weeping Katsura



Butterfly

Use your other senses to find the following:

TOUCH:

A rock warmed in the sun

Wet grass

Moss

Rough bark

LISTEN FOR:

Birds chirping

Frogs croaking

Buzzing flying insects

Gentle breeze

SMELL:

Freshly cut grass

Fragrant flower

Mulch

Warm pine needles



Name: _____

Living vs. Non-Living

<p>Living</p>	<p>Once Living (Dead)</p>
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Non-Living (Never Living)



The **ARNOLD**
ARBORETUM
of HARVARD UNIVERSITY

Name: _____

My Visit to The Arnold Arboretum

[Large empty rounded rectangular box for writing]

My favorite thing I saw today at the Arboretum was _____
