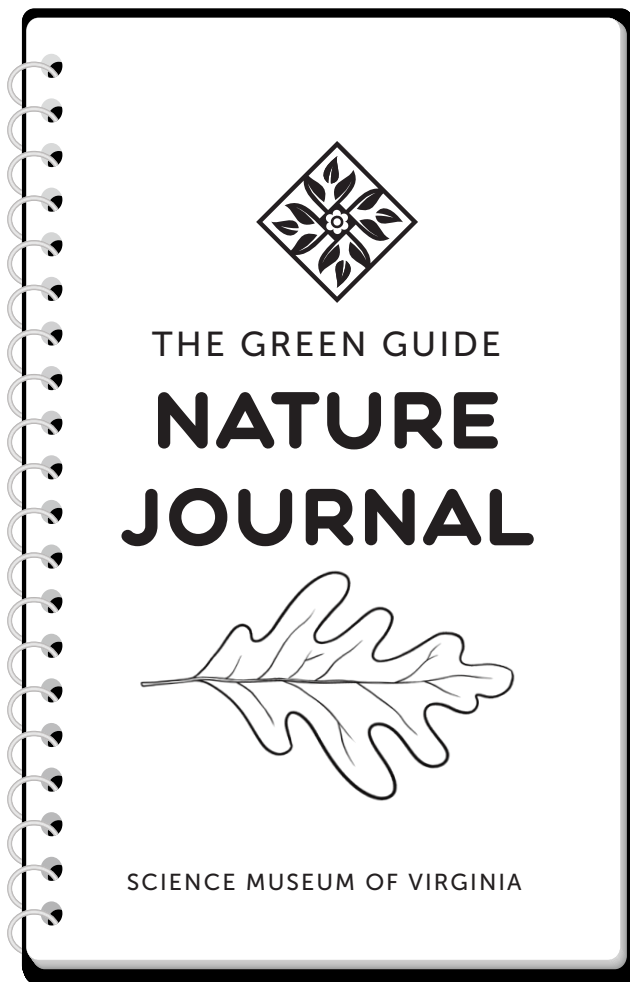


ATTENTION TEACHERS:

DO NOT PRINT THIS PAGE!

**THIS PAGE HAS INSTRUCTIONS ABOUT HOW TO PRINT AND ASSEMBLE THIS NATURE JOURNAL.
IT IS FOR REFERENCE ONLY AND IS NOT PART OF THE GUIDE.**

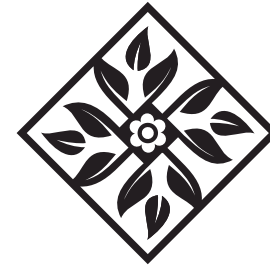


To print the journal, make sure your print settings are as follows:

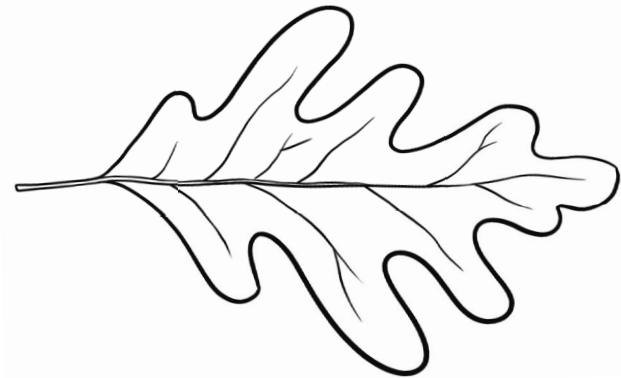
- Start at page 2 so you don't print this page
- Landscape mode
- Both sides of the paper
- Flipping on the short edge

To assemble the journal:

- Stack the sheets of paper in ascending order with even pages facing up
- The page number should be in the bottom right corner
- Fold along the center line to create a booklet
- Staple along the fold to keep the pages together if desired



THE GREEN GUIDE
**NATURE
JOURNAL**



SCIENCE MUSEUM OF VIRGINIA

FREE PAGE!

MAKE ANY NOTES OR DRAWINGS THAT ARE IMPORTANT TO YOU!

LET'S EXPLORE!

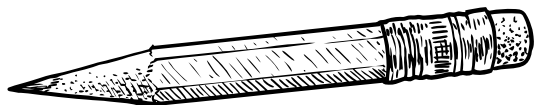
Well hello there, naturalist.

Are you ready to make some environmental observations?

Great! Let's get started!

When you're exploring The Green
at the Science Museum of Virginia,
bring this journal along.

You can use it to take notes,
record your experiences, make reflections on
what you encounter and plan future research.



FREE PAGE!

MAKE ANY NOTES OR DRAWINGS THAT ARE IMPORTANT TO YOU!

Remember to always be respectful of the plants and animals you see. Make observations with your eyes and gently with your hands. Please don't pull any leaves, twigs, flowers or fruit off of the plants and be careful around insects as some of them may sting or bite.



FREE PAGE!

MAKE ANY NOTES OR DRAWINGS THAT ARE IMPORTANT TO YOU!

NAME: _____

LOCATION: _____

DATE: _____

TIME: _____

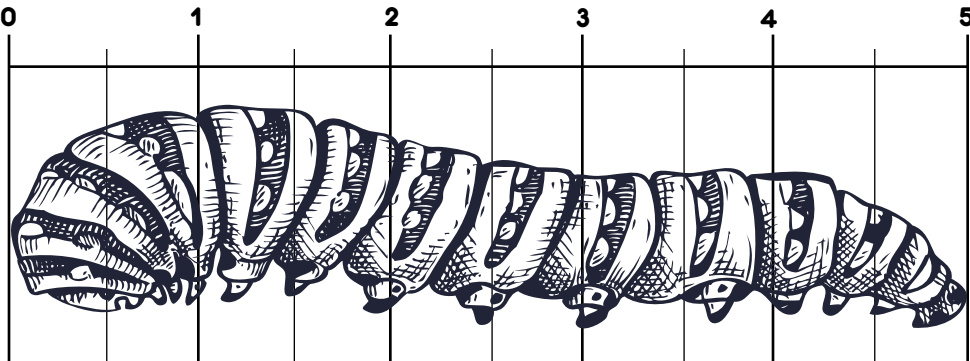
WEATHER: _____

WORM RULER!

Use this ruler to measure things you find.

Make sure to note worm units!

This worm is five inches long.



FREE PAGE!

MAKE ANY NOTES OR DRAWINGS THAT ARE IMPORTANT TO YOU!

FUN WITH FUNGI!

As you explore, look for mushrooms. How many can you find?

Fungus form huge networks underground that connect tree roots. What's it like to be a fungal network? Let's play a game and investigate!

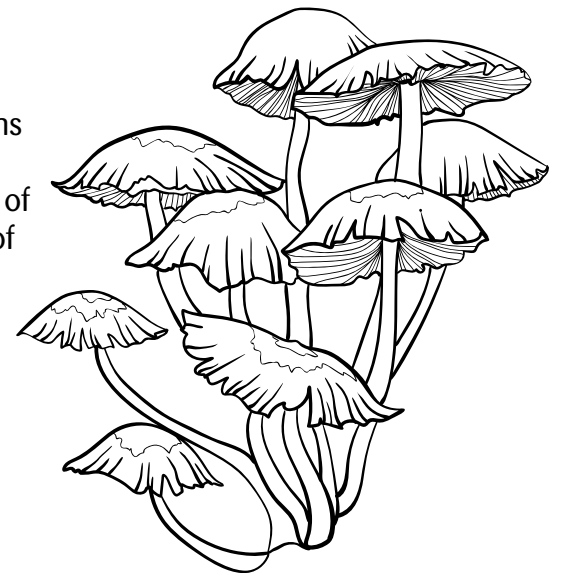
Gather a group of classmates and arrange everyone in a circle. Half the participants are trees and half are fungus. Pick one tree to begin the game by taping the shoulder of a fungus. That fungus can choose to send the shoulder tap to either another fungus or tree. A tree can only send the shoulder tap to a fungus. Spend some time sending these shoulder taps through the group.

What do you notice about how the shoulder tap spreads? How far does the network travel? How could you rearrange your circle to have the network travel farther?

Learn more about fungi by locating and reading the sign about the fungal network underground.

FUN FACT:

Did you know mushrooms you see are only a small part of the fungus? Most of the fungus is a network of fibers, called mycelium, and is underground!



CLOUD COLLECTION

Clouds are water vapor droplets that have condensed around a tiny speck of dirt or salt crystal.

The names clouds are given are based on what they look like from the ground and the height at which they are in the sky.

- High-level cloud names begin with cirrus.
- Mid-level cloud names begin with alto.
- Low-level clouds use stratus or cumulus based on what they look like.



Cirro/us: curl of hair, high



Strato/us: layer



Cumulo/us: heap



Nimbo/us: precipitation

For example, cumulonimbus means “heaps of precipitation” and these clouds often forecast rain!

FREE PAGE!

MAKE ANY NOTES OR DRAWINGS THAT ARE IMPORTANT TO YOU!

FREE PAGE!

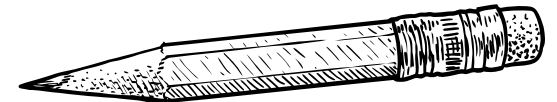
MAKE ANY NOTES OR DRAWINGS THAT ARE IMPORTANT TO YOU!

Sketch or describe the clouds you see and compare them to the clouds pictured in this journal.

Can you name the clouds you see using the terms provided?

Can you find any shapes or patterns in today's clouds?

If there are no clouds, why do you think that might be?



POLLINATOR GARDEN

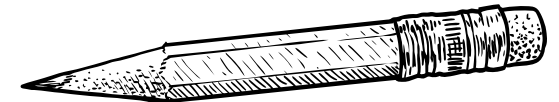
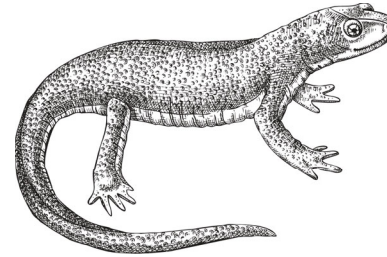
Along the edges of the parking deck and around the ProtoPath we have planted pollinator gardens. These spaces look different depending on the season, sometimes full of colorful flowers and green leaves, and other times just brown stalks are visible.

The pollinator garden is just as important to local pollinators in the fall and winter months as it is in the spring and summer. Food sources in the summer turn into much-needed nests in the fall and winter. Certain species of bees will hollow out stems of plants to live in through the winter and lay their eggs in the spring. Our local pollinators benefit from these gardens year-round!



LISTEN TO YOUR MOVEMENT

What does it sound like when you and your group move through the natural space? Does it sound different if you move on the grass versus the cement path? What about if you move on the gravel path? Who or what else do you think can hear your foot-steps? Why might an animal be aware of the sound of movement?



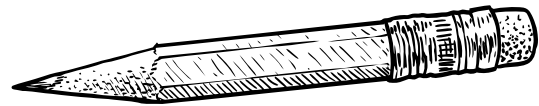
WHAT LIVES HERE?

Although you may not see them, many types of animals can be found in The Green. What evidence can you find that animals have been here? Signs include sounds and calls, feathers and fur, chewed plants, footprints, nests and if you are lucky, the animal itself!

Search for wildlife signs and record your observations.

WILDLIFE SIGN	SOUNDS OR CALLS	TRACKS OR TRAILS	FUR OR FEATHERS	NESTS OR BURROWS	ANIMAL SPOTTING

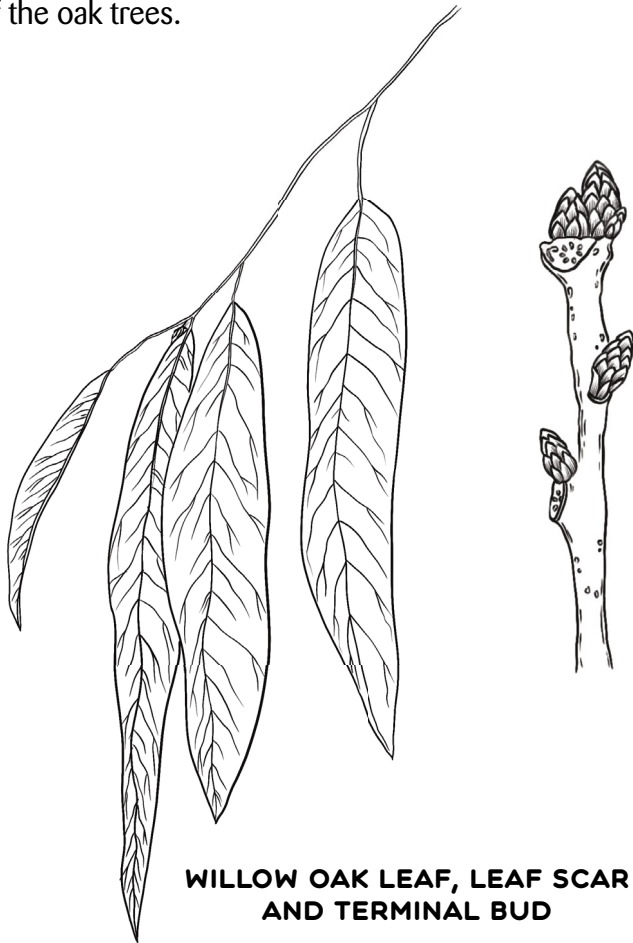
What does the pollinator garden look like now? Sketch what you think it will look like two seasons from now.



TREES IN THE GREEN

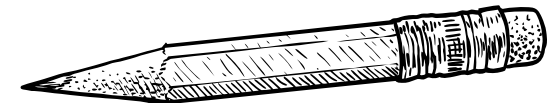
The Green has fairly young trees that have lots of growing yet to do. As they grow, they will get taller and wider, adding layers to their trunk. Depending on the season, you may see leaves, leaf scars (where leaves fell) or buds for next year's flowers and leaves. Leaf scars are unique to each type of tree and can be used to identify the species, even in the winter.

There are 144 trees planted in The Green, and 54 of which are in the oak genus. Oak trees produce acorns. See if you can locate one of the oak trees.



**WILLOW OAK LEAF, LEAF SCAR
AND TERMINAL BUD**

Partner up! Find a friend and describe your tree. Can they find your tree based on the description you provided?

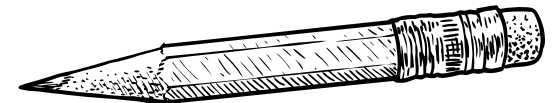


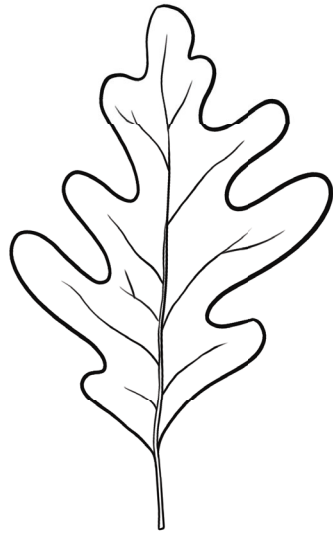
TREE FRIEND

Find a tree that seems interesting to you. Feel your tree's bark. Observe the tree limbs. What features do you notice? Berries? Flowers? Leaves? Needles? Buds? Twigs? Does your tree have a smell? How old do you think your tree is?

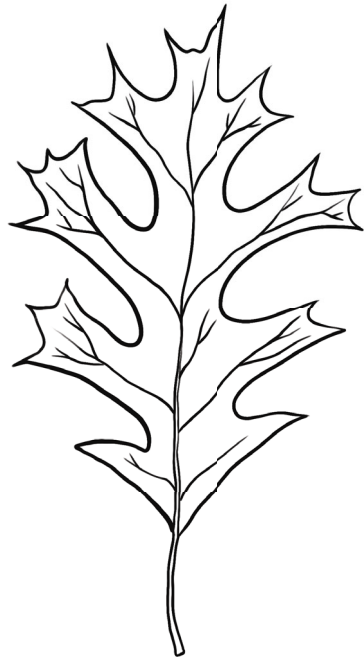
Sketch your tree below and note anything you think is important. Use your worm ruler to measure twigs, leaves and flowers. What do you think your tree will look like in different seasons? Sketch your predictions. If you can, come back to visit your tree friend throughout the year to see if what you thought was correct!

Draw what an oak leaf looks like, or what an oak bud scar looks like. Remember, these are the growing parts of the tree so we want to handle these twigs with care!



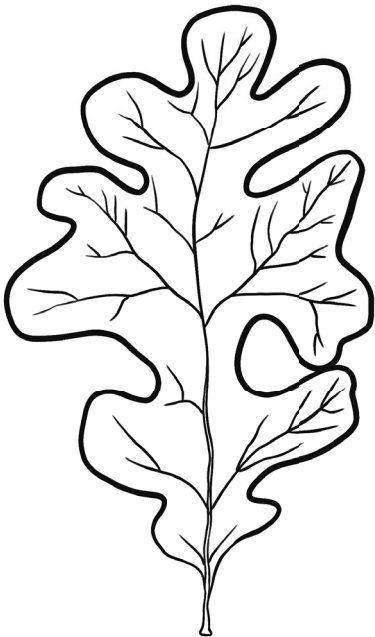


WHITE OAK LEAF



SCARLET OAK LEAF

All of these leaves come from the oak genus. What similarities and differences do you notice between the leaf shapes? Which oak tree do you think you found in The Green compared to these drawings?



OVERCUP OAK LEAF



PIN OAK LEAF

