



This fall, join the GLOBE North American Phenology Campaign. Make observations of leaves as their colors change throughout the season.

What is involved?

These steps are explained in more detail in the following pages.

1. If you don't already have one, create a GLOBE account.
2. Prepare an observation kit and spread the word in your community.
3. Select a tree to observe.
4. Observe your leaves (2 times per week from "green" to "down")!
5. Upload the data to globe.gov or the Observer app.
6. Share the data with your community.



Are you new to GLOBE?

- [Learn about GLOBE.](#)
- Find details about the [North American Phenology Campaign.](#)

What materials do I need?

Observing green-down is easy! You need:

- **Flagging tape and permanent marker:** to mark your tree.
- **GLOBE Color Guide:** to identify specific colors of the leaves.
- **GLOBE data sheet:** to track color changes.
- **GLOBE field guide:** easy steps your users can follow to collect data.
- **Optional:** GLOBE Observer app.



Phenology with PACE

Scientists working with NASA's PACE satellite are looking for photos of the landscape showing fall color change.

[Learn more about PACE.](#)

Create your GLOBE account and guest accounts

In order to share your data with GLOBE (which is an essential part of being in the GLOBE community!), you will need to create a GLOBE account.

1. Follow the instructions on [GLOBE's "Create an Account" page](#).
2. Next, create a guest account: If someone other than you will help with data entry (for instance, another staff member or a volunteer), we recommend creating a guest account. With a guest account, another person can log in and upload data associated with your account. You can create up to 10 guest accounts; a guest account can also be shared between multiple people.
 - Log into your GLOBE account.
 - Click on your account icon in the top right.
 - Click My Observations+.
 - Click the "Guest Accounts" tab and follow the instructions to create a guest account.
 - Record your Guest Account Name: _____
 - Record your Guest Account Password: _____

Prepare your observation kit

An observation kit will make it easier to get your audience involved with data collection. Depending on how active your participants are, you may need to replenish some materials during the fall.

In the kit, include:

- GLOBE Green-down data sheet (page 6): Fill in the top portion with the site name and tree information.
- GLOBE Green-down field guide (page 7)
- GLOBE Color Guide: Use the Phenology Campaign ruler or [download a color guide](#).
- Pencil
- Clipboard

Get the word out!

Spread the word with the pre-made flyer and social media posts at the ["Fall 2026 Phenology Campaign" Google folder](#).

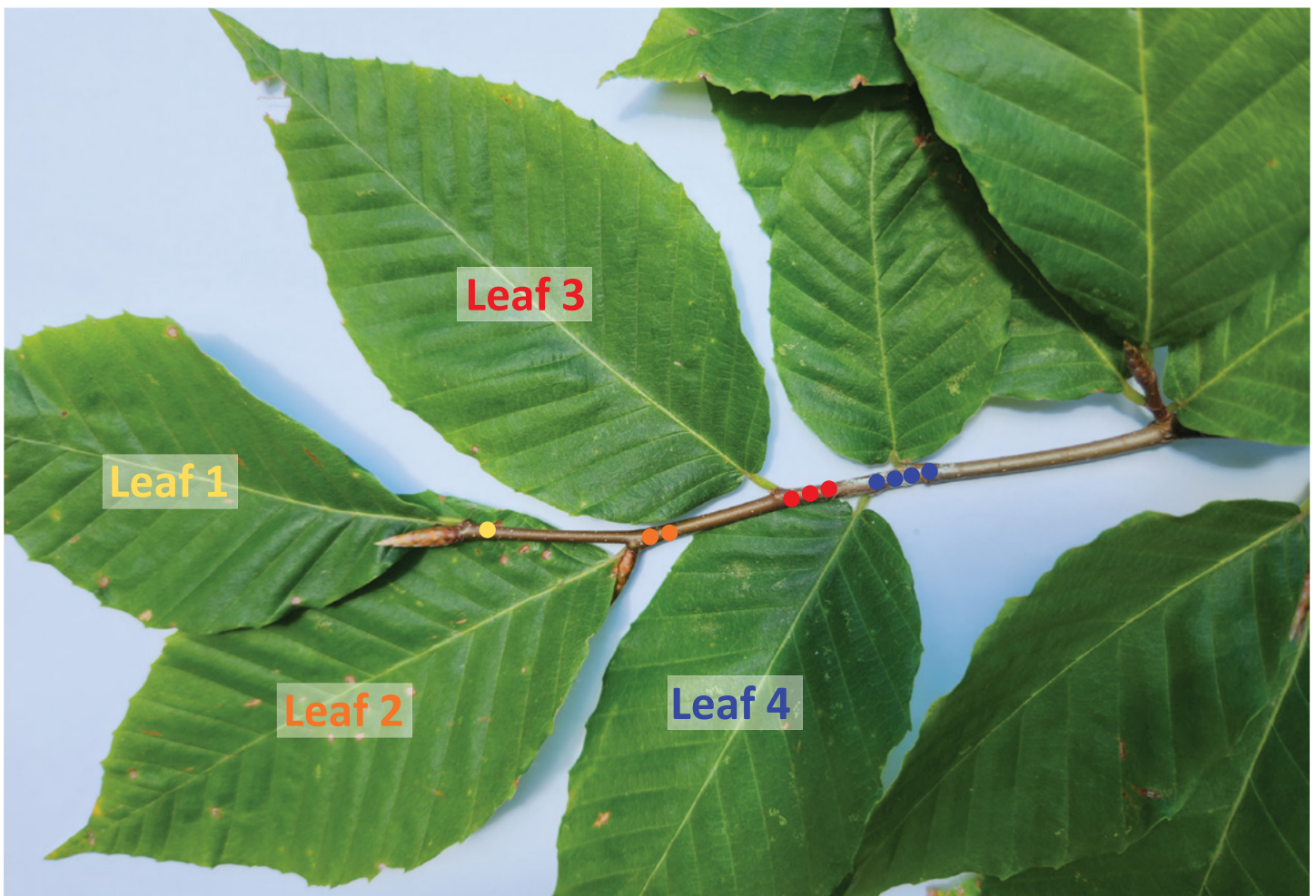
- The flyer can be printed and posted at your site to gather interest.
- Images for Facebook and Instagram are accompanied by sample text to share.



Select your tree

Follow the steps below to select and tag your tree, or watch a short protocol tutorial at [GLOBE's North American Phenology Campaign "Protocol Tutorials"](#) page.

1. Find a tree in an accessible area with a branch that can be reached by your participants. Trees native to your region are preferred but not required. Describe its location here:
2. Identify the tree species: _____
3. Label the branch with a piece of flagging tape or ribbon.
4. Label the four leaves at the end of the branch by putting dots on the branch next to the leaf stem. Start at the terminal (last) leaf with one dot, and move inward with two, three, and four dots.



Upload the data

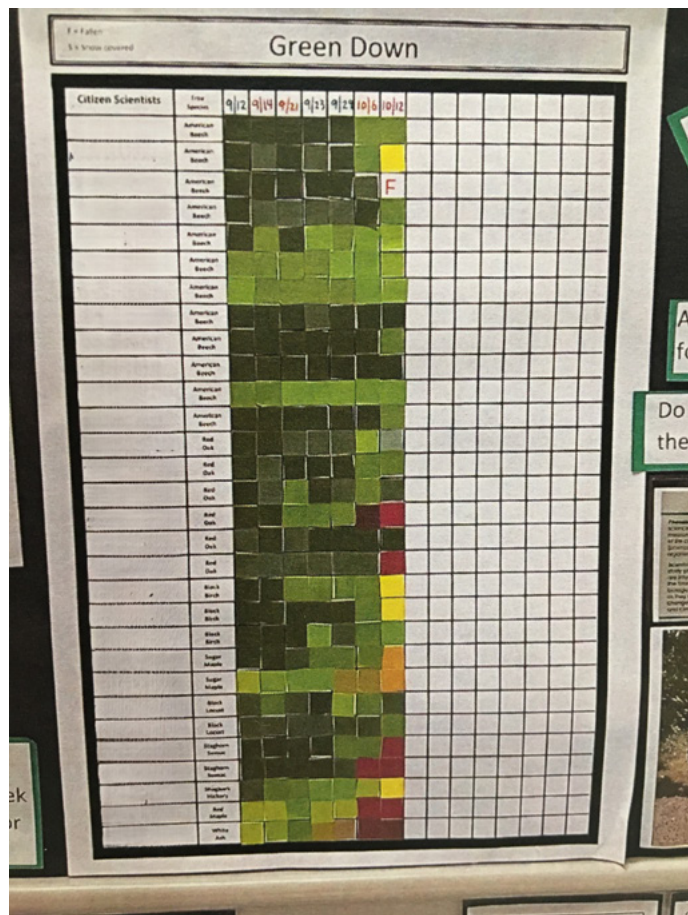
Enter data through the [GLOBE Observer App](#) or online at [GLOBE's Data Entry](#).

1. Log in to the GLOBE website or GLOBE Observer app (same log in for both!).
2. The first time you will be prompted to enter information about your location and your tree. Give your site a descriptive name, for example "Greenstown Library Front Lawn." If you are observing multiple trees, click "Add a Plant" and enter information for each tree.
3. Enter the date and time, choose 1 for "Growing season cycle number" and enter the color code for each leaf.
4. Each subsequent time you upload data, you will simply select your site and then repeat step 3.
5. If you need help, check out the following tutorials at [GLOBE's North American Phenology Campaign "Protocol Tutorials"](#) page, or reach out to us at usglobeoffice@gmail.com.
 - GLOBE Data Entry Video Tutorials
 - Using GLOBE Observer to Record Green-down

Share the data with your community

Create a timeline of your tree's color change!

1. Print out copies of the GLOBE Color Guide and cut out the color squares.
2. Use large paper to create a timeline encompassing when fall occurs in your region.
3. After participants collect data, have them use a glue stick to paste the dominant leaf color on the timeline. On the right is an example from a classroom where they measured many different trees.
4. Watch the color change over time!



Our favorite autumn literacy connections

Non-Fiction Picture Books

- Summer Green to Autumn Gold: Uncovering Leaves' Hidden Colors – Mia Posada
- Awesome Autumn – Bruce Goldstone
- Autumn Leaves – Ken Robbins
- Full of Fall – April Pulley Sayre (poetry)

Fiction Picture Books

- Goodbye Summer, Hello Autumn – Kenard Pak
- My Leaf Book – Monica Wellington
- Green on Green – Dianne White

Autumn art connections

- Use the [Seasons Greenings activity](#) (PDF) from the National Oceanic and Atmospheric Administration (NOAA) to make paint-by-number maps of plant growth in different seasons.
- Take a look at leaves and make leaf rubbings with the [Project Learning Tree activity “Looking at Leaves.”](#)

Questions?

- Reach out if you need help! Send an email to usglobeoffice@gmail.com.
- Find answers to some common questions at the [Phenology Campaign FAQs page](#).
- Find many other tips and resources on the [North American Phenology Campaign webpage](#).

GLOBE Green-Down Data Sheet

Name: _____ Site Name: _____

Plant Genus: _____ species: _____

Plant Common Name: _____ Label: _____

Growing Season Cycle Number: ☐ 1 ☐ 2 ☐ 3 Year: _____

Green Down Measurements

For each leaf choose: Color Code • Fallen (F) • Snow Covered (S)

Date (MM – DD)	Leaf 1	Leaf 2	Leaf 3	Leaf 4

Comments:

GLOBE Green-Down Field Guide

1. Locate the leaf at the end of the flagged branch. There should be one dot on the branch next to the leaf stem. This is Leaf 1.
2. Hold the GLOBE Color Guide up to the leaf and decide which is the dominant color.
 - Note: if the leaf has more than one color, only record the color that covers the greatest percentage of the leaf.
3. On the data sheet, record the color code for that color under Leaf 1.
 - If the leaf is covered with snow, record "S."
 - If the leaf has fallen off the branch, record "F."
4. Find the next leaf up the branch with two dots next to it. This is Leaf 2. Repeat steps 2 and 3 to record the dominant color.
5. Continue to record the dominant color for leaves 3 and 4.
6. Return the data sheet and supplies!

