

# Activity 1 – My Tree

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## You continue observing the same tree(s) as in the Spring Phenology Campaign:

- Check your tree. Are there any visible changes? Can you find the branch and leaves that you have observed in spring?
- Take picture of your tree using [GrowApp](#) and share it at the [discussion forum](#).
- If you are going to observe other tree(s), follow the instructions below.

## You are new to the Campaign or you want to observe new tree(s):

### 1) Select a tree:

- Close to your school or home, so that you can observe it often
- One of the [7 species of the campaign](#)



- If possible, choose a tree that is not shaded by a building (Ideally the tree-building distance is more than the height of the building), watered or fertilized. If any of these conditions cannot be met, make a note of this when creating your site.
- Find at least one branch that is positioned low so that you can observe the leaves closely. If possible, choose south facing branch.

### 2) Describe the tree and the site where it grows:

- Take GPS coordinates and write down altitude as well
- Find out the Latin name of the tree species (e.g. *Corylus avellana* for hazel)
- Label the tree (e.g. Hazel 1)
- If your tree has some specific conditions (watering etc.), note it down

### 3) Take pictures of the tree using **GrowApp**.

- The use of [GrowApp](#) is very easy and intuitive. See the [manual](#) on the GLOBE website.
- Share your picture at the [Discussion forum](#).

**The activity should be completed as soon as possible, not later than September 25<sup>th</sup>.**

**See next page for the Tree Height learning activity.**

# Additional activity: How tall is my tree?

Now you have chosen a tree for your observations. You will observe it throughout autumn and learn a lot about its yearly cycle. With this activity, you can discover one more thing – **the tree height**.



## Your students will learn

How to measure the height of the tree with a hand-made clinometer or using a GLOBE Observer App.

## Basic information

- Tree height is the most widely used indicator of an ecosystem's ability to grow trees.
- Observing tree height allows NASA scientists to understand the gain or loss of biomass and to assess the amount of carbon that trees either take in from or release into the atmosphere.
- You can measure the tree height during the first or any other visit.

**Using clinometer:** before the first visit print the [worksheet](#) and prepare the equipment listed.

**Using GLOBE Observer App:** before the first visit [download the app](#) and create an account (You can log in with your GLOBE account if you have one!). Using the app is easy. This [tutorial](#) will guide you step by step. The data collection can be done offline.

## How tall is my tree?

- First, ask students to think about **what they know and don't know about your tree**. Write down the answers. Students may mention a tree height.
- Ask students to **guess, how tall the tree is**. Do they have any ideas, how to find it out?
- If you decided to work with clinometer, give students printed worksheets and other equipment. Ask them to create and use the clinometer following the instructions.
- If you plan to use GLOBE Observer, show students how to use the app.
- In both cases **repeat the measurements at least 3 times** and record an average height.
- Discuss the result with students. Was it surprising? Did other questions arise?
- **Upload the result** into the GLOBE database.
- **Share pictures** of your measurements and your questions at the [discussion forum](#).
- More information about measuring tree height can be found in [Biometry protocol](#) or at [Trees Around the GLOBE Campaign website](#).

