How tall is my tree?

Now you have chosen a tree for your observations. You will observe it throughout spring 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 any of your visits.

Using clinometer: before visiting your tree, print the underlined worksheet and prepare the equipment listed.

Using GLOBE Observer App: before visiting your tree, 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.