

# Activity 1 – My Tree

## 1) Select a tree

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



- With at least one south-facing branch that is positioned low so that you can observe the buds closely.
- 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.

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

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

## 3) Take picture(s) of the tree using GrowApp

- The use of [GrowApp](#) is very easy and intuitive. See the [manual](#) on the GLOBE website.

 **The activity should be completed by March 19th.**

 **Share your picture at the Discussion forum.**

For Carbon Cycle learning activity please continue to the next page.

# Carbon Activity 1 – Tree Growth Game

## Students will learn

- What a tree needs to grow.
- How a tree absorbs and stores carbon.

## Basic information

There is invisible carbon in the air, which can be absorbed by a tree and transformed into its body - leaves and wood.

Trees bind a large amount of carbon dioxide and water.

Photosynthesis is the process of converting these two components into sugar called glucose.

This reaction requires a lot of energy. Trees gain the energy from the sunlight via a special leaf pigment: chlorophyll. Chlorophyll absorbs sunlight and transforms it into the energy needed for photosynthesis.



**carbon dioxide + water + energy from the Sun → glucose + oxygen**

## The Tree Growth Game

- *Time and place:* 20 minutes, close to your tree or in a classroom
- *You will need:* blue drops (20 pcs) and white balls (20 pcs) made from paper. For each group (max. 6 students): a big leaf cut from green paper, crayons, glue, picture of sun, paper to draw a poster



*Divide the students into groups, give each group one green paper leaf and invite them to “grow” their tree on a paper. Students in each group choose one of them to represent the Trunk. The other members of the group divide into Leaves and Roots. Spread blue water drops and white carbon balls around tree or classroom.*

*The Trunk draws a tree on a paper - at first, a thin trunk and as many leaves and roots as there are in his group. When instructed, the Leaves run for carbon balls and Roots for water drops, carry them to the Trunk and lay them on the green leaf. For each carbon and water brought by Leaves and Roots, the Trunk draws a new leaf on the tree.*

*For every three new leaves, the Trunk draws additional layers of wood on the tree. The sun is shining all the time (symbolized by a picture).*



*Ask groups to complete their posters so that the tree has all it needs for its growth.*

 **TIP: For more activities, follow the worksheet [Bioenergy from Wood](#).**

 **Share photos of your tree posters at the [Discussion forum](#).**