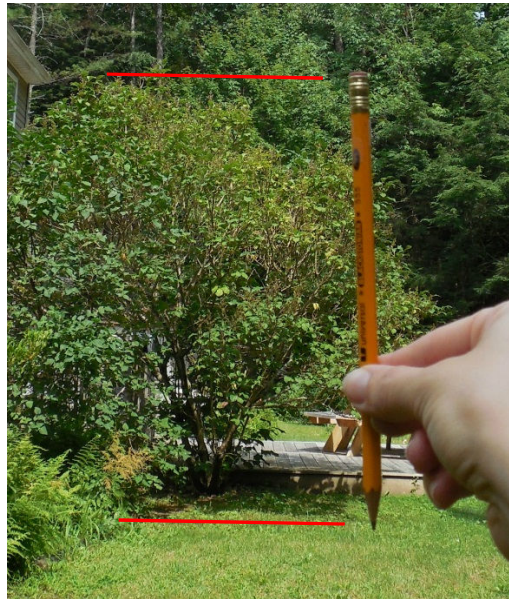


# Outdoor STEM: Measuring Tree Height

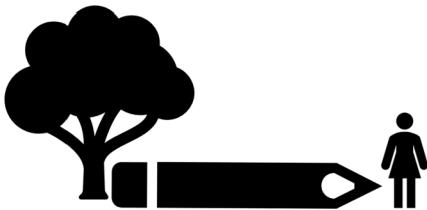
For this activity, you will need:

- A partner
- A pencil
- Something to measure with, like a meter stick, or a tape measure
- A tree

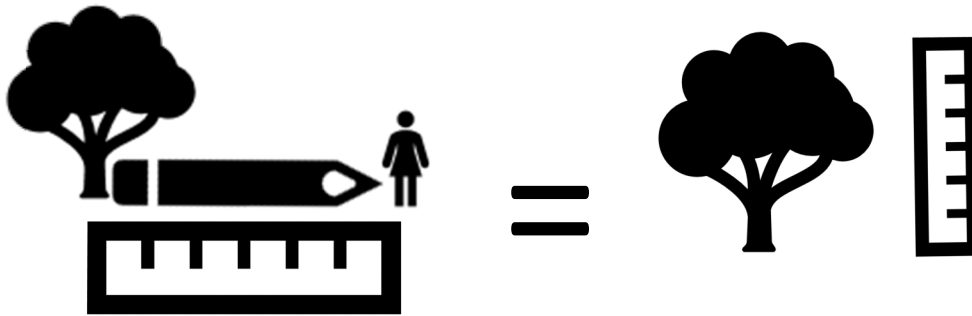
1. First, choose a tree to measure. One person stands near the tree, while the other walks away from it. The person walking away will also be the pencil holder.
2. As they walk further away the pencil holder should every so often hold the pencil up vertically in front of them and compare it to the height of the tree. When the bottom and top of the pencil line up with the bottom and top of the tree, the person should stop moving.



3. Now, the pencil holder will turn the pencil so that it lines up with the base of the tree horizontally. Be sure not to move your feet! The pencil holder will tell his/her partner to move away from the tree until they are lined up with the tip of the pencil.



4. The distance from the tree to where the partner now stands is the approximate height of the tree. You can measure this distance to find the estimated height of the tree.



**5. Data collection:**

Distance from base of tree to partner: \_\_\_\_\_

Therefore, the estimated height of the tree is: \_\_\_\_\_

6. Measure another! This time swap jobs with your partner.

**Data collection:**

Distance from base of tree to partner: \_\_\_\_\_

Therefore, the estimated height of the tree is: \_\_\_\_\_