

Height of a Tree Lesson Plan To go with LEAF Resource Sheet (Height–Age–of–Tree LEAF Ireland Resource)

Theme: How tall is our tree?

Aim: To measure the approximate height of a variety of trees

Objective:

- To find a variety of trees to measure their heights (in school grounds or local park)
- To encourage **maths** in the outdoors with students, with *estimation, measuring* and *recording* activities, as well as **physical activity** and **tree identification**

Resources:

- ✓ Print off of worksheet per group (lamine if possible, as they will be re-useable and won't get wet)
<https://leafireland.org/resources/page/2/>
- ✓ Clipboards (optional)
- ✓ Pencils/Pens
- ✓ Camera/Tablet to record activity
- ✓ Sheet to record results (optional)

Method:

1. Try this yourself first! Find some good trees to work with.
2. Print off the Height–Age–of–Tree Student Worksheet for the students (they can work in small groups of 3-4) -
<https://leafireland.org/resources/page/2/>
3. Before they begin, ask the students to estimate the height of a tree (discuss 3 feet = 1 metre). Ask them all to measure three footsteps with

their feet and that equals approx. 1 metre.

4. Let them break into their groups and carry out the activity, following the instructions on the worksheet and to record their results.
5. Bring the group back together to give their results. Were their estimations correct or close?
6. Ask some questions or lead a discussion, such as:
 - How come these trees are tall and thin? (When growing in a group, trees will grow up towards the light more quickly)
 - How come this tree growing out in the open is tall but wider? (When given the space, a tree will grow to it's optimum height and width)

Other measuring methods – could be suitable for Secondary School students:

As this activity is based on basic triangulation, there are more advanced methods, which could be appropriate to use with.

<https://www.youtube.com/watch?v=F6ftSqImFM>

Notes:

- ✓ The measurements do not need to be exact, estimations will do – it is more important to have fun while doing this activity!
- ✓ You can refer to the fact that you will all look a bit silly doing this activity, but that is fun too
- ✓ This activity can also be connected to Tree Identification (leaf, twig). See other LEAF Ireland Resources.