

Age of a Tree Lesson Plan

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

Theme: How old is our tree?

What age is our tree?

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

Objective:

- To find a variety of trees to measure their ages (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**
- An excuse to hug a tree – not that you should need one!

Resources:

- ✓ Print off of worksheet per group (laminate if possible, as they will be re-useable and won't get wet)
<https://leafireland.org/resource/s/page/2/>
- ✓ Measuring tapes per group
- ✓ Calculator per group
- ✓ 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/resource/s/page/2/>
3. Before they begin, ask the students how you can tell the

age of a tree. This usually involves counting rings on a tree that has been cut down. Another method used by specialists is to bore into the bark and to take a sample. Neither is an option here!

4. Ask the students to estimate the age of a tree.
5. The important information to give them at the beginning of this activity is that **on average a tree can grow 2.5cms per year (see notes below)**.
6. Bring their attention to cms and inches on the tape. Ask them to use the cms so that they are all working with the same measurements.
7. Demonstrate how to measure 150 cms/1.5m from the ground (ask for help from one of the students to hold the tape on the ground at the bottom of the tree). Show them how to hug the tree and to read the measurement from the tape and how to do the calculation.
8. Let them break into their groups and carry out the activity, following the instructions on the worksheet and to record their results. Ask the students to share the jobs in their group.
9. Bring the group back together to give their results. Were their estimations correct or close?

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10. They can repeat this activity a few times.

year. In full light they can grow 2.5cms. However, all trees grow

11. Ask some questions or lead a discussion, such as:

- a. How come some trees are tall and thin and others are not, when they are the same age?
- When growing in a group, trees will grow up towards the light more quickly, so they may be younger than you expect. When given the space, trees will grow to their optimum height for their age.

at different rates and other factors will affect this rate, such as soil type, access to water and prevailing winds, etc.

Additional Notes:

- ✓ This activity can also be connected to Tree Identification (leaf, twig).
- ✓ See other LEAF Ireland Resources
- ✓ Ask the students to mind where they trample with their feet and where they use the tape, as there will be creatures and plants living around the base and on the bark

NOTE: On average tree in shade or in a forest grows 1.5cm per