

Seeds, Seedlings, Saplings

Looking at a tall mature tree, it can sometimes be hard to believe that it started out as a tiny seed. This lesson will focus on the early stages of the life of a tree.

Tree (or other plant) seeds, paper towel, plastic bag, ribbon or string

Grades: K-7

🕓 20-60 minutes



Spruce seed and seedling

Seeds, Seedlings and Saplings Stroll

If you're able to take a walk (or a hike) through a forest, search for seeds, seedlings or saplings:

Can you find a seed of a tree that made it through winter? What about the seeds stored in conifers' cones? Maybe a maple "key"? The seed inside a fruit like a mountain ash berry?

When a seed germinates, a shoot emerges. When the shoot comes out from the ground, it's called a seedling. Can you find any seedlings?

When the seedling grows bigger than 1 metre in height or so (it depends on what kind of species it is), it becomes a sapling. Saplings have flexible trunks and smooth bark (compared to when they are full-grown trees).



Maple keys

Plant a Seed

If you're lucky enough to find a seed, here's how to plant it using a paper towel:

- 1. Create a mini-greenhouse for your seeds, which should germinate in about a week.
- 2. Get 2 pieces of paper towel that will fit flat in a ziploc bag (ideally, sandwich-sized).
- 3. Moisten one of the 2 pieces.
- 4. Gently place 3-5 seeds onto the moistened towel; cover with the other piece of paper towel.
- 5. Place the "seed sandwich" into a clear zip-locking bag; seal the bag. Make sure to keep the bag away from direct sunlight but in a warm enough room (room temperature or a bit warmer).
- 6. Watch your seeds germinate and become seedlings, then plant them in your yard or garden.



Chestnut seed

Listen to Seed Stories

K-Grade 2:

Listen to this story: Miss Maple's Seeds by Eliza Wheeler, a whimsical picture book about a caretaker of the season's lost seeds.

Grade 2-5:

Listen to this story: A Seed is Sleepy by Diana Hutts Aston. This is a well-illustrated nonfiction book that shows a wide variety of seeds as well as their ways of dispersal.

You can also watch this timelapse of a pine seed growing.



Western White Pine saplings are probably the easiest trees to age.



Even when they're mature trees, it's easy to see each year's growth. The red lines show the space between each set of whorls.



Not all trees are that straightforward, as you can see in this photo of a grand fir sapling.

Sapling Investigation

If you find a sapling, tie a ribbon 'round it (like your buddy, Bud) and see how it changes over time.

With some conifers (larch, spruce, fir or, ideally, western white pine), try aging your sapling by counting the number of spaces. The space on the trunk, between each set of whorls (where the branches come out from the trunk) indicate one year's growth. Even when they're mature trees, it's easy to see each year's growth.

Not all trees are that straightforward. But it's still fun to try and figure out how old they are! You and your family could each try to do your own estimating of how old the tree is by counting the whorls, then compare answers afterwards.

