

On Thursday, in our fourth class period we went out of the classroom and we walked into the IST forest that is on our school territory. We were looking at trees, and measuring two different kinds of trees that were in our forest. We were measuring their width and length. I noticed that the two different kinds of trees had really similar widths, which was a little surprising.

My observation was interesting because we were observing them and these were really similar types of trees. I already knew some things about trees, for example that if you cut a tree in half you can see these little circles inside, and it can show you how many years it is living already. Some things that I knew about measuring trees is that you just put the strange triangle in front of your face and you stand in front of the tree in a special position and it is somehow measuring you the height of the tree, I never tried that and it is quite interesting for me.

My observation makes me think that every tree is unique, and it can survive many years, no matter if it is really small or big. It is also similar to some other organisms, for example us humans. Both trees and humans have mobile limbs growing from a central trunk. The tubular bronchi in the human lungs are surprisingly visually similar to the root systems of many trees. As two very different species, we and trees can be said to share many similarities

Humans can be really similar to trees, these include the retention of stem-cell-like meristematic cells after each growth cycle; the ability to replace non-vigorous, lost, or damaged organs, both above and below ground, in the presence or absence of trauma; a sectorized vascular system that allows part of a tree to survive where a whole one cannot.

Some trees can always grow and never stop growing. For example Sequoias, better known as Giant Sequoias and Coastal Redwoods never stops growing. Trees are unique from other plants because they can and usually do live for decades and up to several millennia (the oldest known single-stem tree is a baobab in South Africa measured to be 6000 years old), grow successive layers of woody vascular tissue that is added from growth just under the bark to develop wood.

Trees also help us breathe. Just like humans, trees breathe. But, while humans inhale oxygen and exhale carbon dioxide, trees do the opposite: their leaves pull in carbon dioxide, water, and energy from the sun to turn into sugars that feed the tree. This process, known as photosynthesis, emits oxygen. Spending time around trees and looking at trees reduces stress, lowers blood pressure and improves mood. Numerous studies show that both exercising in forests and simply sitting looking at trees reduce blood pressure as well as the stress-related hormones cortisol and adrenaline. Looking at pictures of trees has a similar, but less dramatic, effect. Studies examining the same activities in urban,

unplanted areas showed no reduction of stress-related effects. Using the Profile of Mood States test, researchers found that forest bathing trips significantly decreased the scores for anxiety, depression, anger, confusion and fatigue. And because stress inhibits the immune system, the stress-reduction benefits of forests are further magnified.