

## VFT

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"It's definitely closer today."

Howard Langley looked at the roots of the old oak tree on the edge of the blacktop at Pleasant Elementary. They had started the year a good 2 feet from the foursquare court but now, in early spring, it seemed as if they had encroached 3 or even 4 inches. The crust of the road was starting to crumble and push upwards, like a fissure was forming underneath.

"No way, you're out of your mind," said Jen Stevens. "Besides, aren't roots supposed to grow like that? As the tree gets bigger, they spread out to find more water and nutrients and stuff to help it keep growing."

"And act as anchorage," Howard nodded. "Plants also get nutrients through their leaves, they gather carbon from the CO<sub>2</sub> in the air for photosynthesis."

Jen rolled her eyes. "Show off."

Howie smirked. They had just learned this in science class last month, but the test for that unit had already come and gone. Jen was smart, but she was more of the cram-and-dump type, always moving on to her next fixation. She often compared him to a landfill of info, saying that he remembered even the smallest piece of garbage.

"And this kinda stuff happens all the time," she pointed toward the cracks. "There are weeds growing out of my driveway that have done more damage than that!"

"I'm just saying that process takes a long time. This tree has probably been here for more than 50 years, it's gotta be over 60 feet high so you know it's mature. I'm sure it's still growing, but not all that quickly, and those roots are a lot closer than they used to be."

"How can you be sure?" Jen asked. "Did you measure them or something? If we're going to be scientific about this, you should probably talk in qualitative terms."

"Quantitative."

"You know what I mean! Numbers, baby—show me the numbers! Let's bring a couple rulers out tomorrow."

Howie looked up at the tree. A robin suddenly swooped in and landed in its nest to tend to its eggs, the tops of which could just be seen over the bundle of twigs and grass.

They had used the big tree as home base for tag since kindergarten and still gathered beneath the shady boughs to trade Pokémon cards on especially hot days. As they had gotten older (and braver) they had dared each other to see who could climb the highest. Jen had made it to the 9<sup>th</sup> branch before the recess monitor had shouted her down, which they both figured just about had to be a school record. But looking up now, the branches seemed to be bowing towards him, menacingly. Right now, he wouldn't have climbed onto the 1<sup>st</sup> branch; not for anything.

"You're on," said Howie.

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They settled on the yardstick that Ms. Kemper kept in the marker tray of the classroom whiteboard as their measuring tool. Jen suggested that she fake stomach cramps to distract their teacher while Howie snuck over and swiped it.

“Why don’t we just ask if we can use it? It’s for a science experiment, she’d love that!” Jen rolled her eyes. “Of course you’d want to just *ask* to use it, Mr. Goody-Two-Shoes. And can we please not call this a science experiment? You really are going to make my stomach cramp up. It’s a *secret mission*! Where’s your style? Your bravado? Your sense of adventure?!”

Howie just smiled and shook his head. He had always been envious of Jen’s imagination. She was the one who came up with the perfect game to play, even if she had to make it up off the top of her head. She had woven the tapestries of their make-believe excursions for as long as Howie could remember, while he had just been happy to follow the thread. The only stories he could ever recount were pulled straight from the novels he devoured: *Treasure Island*, *John Carter of Mars*, *The Dark Tower*, even kid stuff like *Redwall* and *The Chronicles of Narnia*. He had never really learned the knack of crafting a story out of the ether, pulling an entire world out of the spaces between the atoms inside his head. But he didn’t see how it was necessary in this situation.

“The adventure comes from me proving to you that I’m right.” Howie grinned.

Jen’s nostrils flared, the way they always did when he had successfully gotten under her skin.

“You just think I’d blow it! I can convince anyone of anything, I believably played Christopher Columbus in the school play last year—I could sell salami to a rabi, I could--”

“I’m not doubting your salesmanship, or your acting abilities, but I’ve seen you when you get to monologuing. We’d be here until we graduated high school! C’mon, let’s just go with my idea and get out there!”

She stuck out her tongue but made no further attempt to pursue her scheme.

Ms. Kemper had been happy to lend Howie the yardstick and delighted to know the purpose was educational.

“Ooh, what will you be measuring? The length of shadows as the sun travels across the sky? Or perhaps the dimensions of the different playground pieces?” She asked gleefully. Nobody seemed to love the actual concept of learning more than their fourth-grade teacher.

“I wish I could tell you, ma’am...but it’s a secret,” Howie glanced over at Jen and winked. Jen tried to look haughty but only managed for about half a second before breaking into a fit of giggles.

The two left the classroom with their prize and made a beeline for the base of the tree. Howie had brought along one of his unused composition books and a pencil in order to catalog their findings.

“I’ll make a table to record our raw data. We’ll use the edge of the 4-square court as our designated endpoint, it’s about...40 centimeters from the end of the blacktop. That way we’ll always have a precise measurement, even if the asphalt erodes or cracks any more. The columns will be labelled with our discrete measurements: Distance from Nearest Root is the most obvious, but we should also get the Distance from Trunk Base, Height to 1<sup>st</sup> Branch and Trunk Diameter. A measuring tape would be nice so we could get the circumference, but we can extrapolate that from the diameter...I wish we had more at our disposal to measure the actual height, although I suppose we *could* take Ms. Kemper’s idea and measure the length of the tree’s shadow and compare that to—”

“Easy there, Howdy Doodie,” interjected Jen. “Your landfill is showing.”

He grinned, sheepishly.

“Sorry, guess I got a little carried away. And I’ve been meaning to talk to you about that—I feel like a recycling center is a better analogy, with a more...agreeable connotation. It implies: A) That I’m clean and B) That I sift through the information, sort it into distinct piles and transform the facts into new and useful—”

“HOWIE! Just tell me where to slap this bad boy down, and let’s get some digits.”