

A Classroom Demonstration for *The Life of a Leaf*

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How Resistance to Bending Scales (Page 204):

Here's a simple demonstration of how resistance to bending scales that operates at a larger scale and makes a decent classroom demonstration. Obtain a piece of softwood, eight feet long, a "1 x 8" as they're sold, as free of knots as you can find. Rule lines across the board at 1, 2.5, 4, 5.5, and 7 foot points. Lay the board across supports (bricks on their sides, for instance) with 3 feet between supports, add a weight in the middle (I use 140 pounds—10 stones—in the form of myself), and have someone record the downward deflection. Then repeat with six feet between supports. The second trial should give, with luck, about eight times the deflection. But be careful. I once tried the thing with a board that had a knot and ran between two saw horses. It dropped me most embarrassingly (a camera was running). The trouble, of course, is that you want to tickle the edge of breaking to get a good deflection.